

The CHILDREN'S NEWSPAPER

AND CHILDREN'S PICTORIAL

The Story of the World Today for the Men and Women of Tomorrow

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EDITED BY ARTHUR MEE

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A SPECK WORTH 30,000 POUNDS

FISH SINKS A SHIP

FIERCE ONSLAUGHT IN THE INDIAN OCEAN

How a Sea Creature Charged a Vessel

CROCODILE CONQUERS A RHINOCEROS

For a ship to be sunk by a fish and a full-grown mule to be carried off by a reptile, seems more like fiction than fact. Yet both have recently happened.

The ship was an Arab dhow—a little sailing vessel of a class that varies between 150 and 300 tons, infamous in history as the craft in which captured slaves were carried from the East Coast of Africa to Persia and the Arabian Gulf.

But this particular dhow was engaged in lawful trade in the Indian Ocean, and was sailing peacefully toward Mombasa when the fish attacked it.

The fish was a sword fish, described as a giant, from which we may infer that it would have a body length of fully 12 to 15 feet and a sword over a yard long.

Swordfish's Formidable Weapon

These terrible creatures are built upon an ideal plan for a swift, impetuous rush and a terrific thrust with the sword, which is simply a marvellous extension of the upper jaw.

The Arab seamen observed the brute approaching and endeavoured to frighten it off. One might as well try to frighten a charging rhinoceros.

The swordfish will kill whales and attack big ships, and this one went full tilt at the little dhow, pierced its hull with its weapon, and caused it to sink. The crew, unable to save their craft, jumped overboard and saved themselves. Scores of attacks such as this are recorded against swordfish; only the sinking of the ship is unusual.

It is impossible after such an onslaught for the assailant to withdraw his sword; he must break it off or perish—perhaps both. We have in our Natural History Museum in London a sword from one of these creatures, fast embedded in a stout oak plank 22 inches thick. The plank was part of a ship, and the sword was driven right through it.

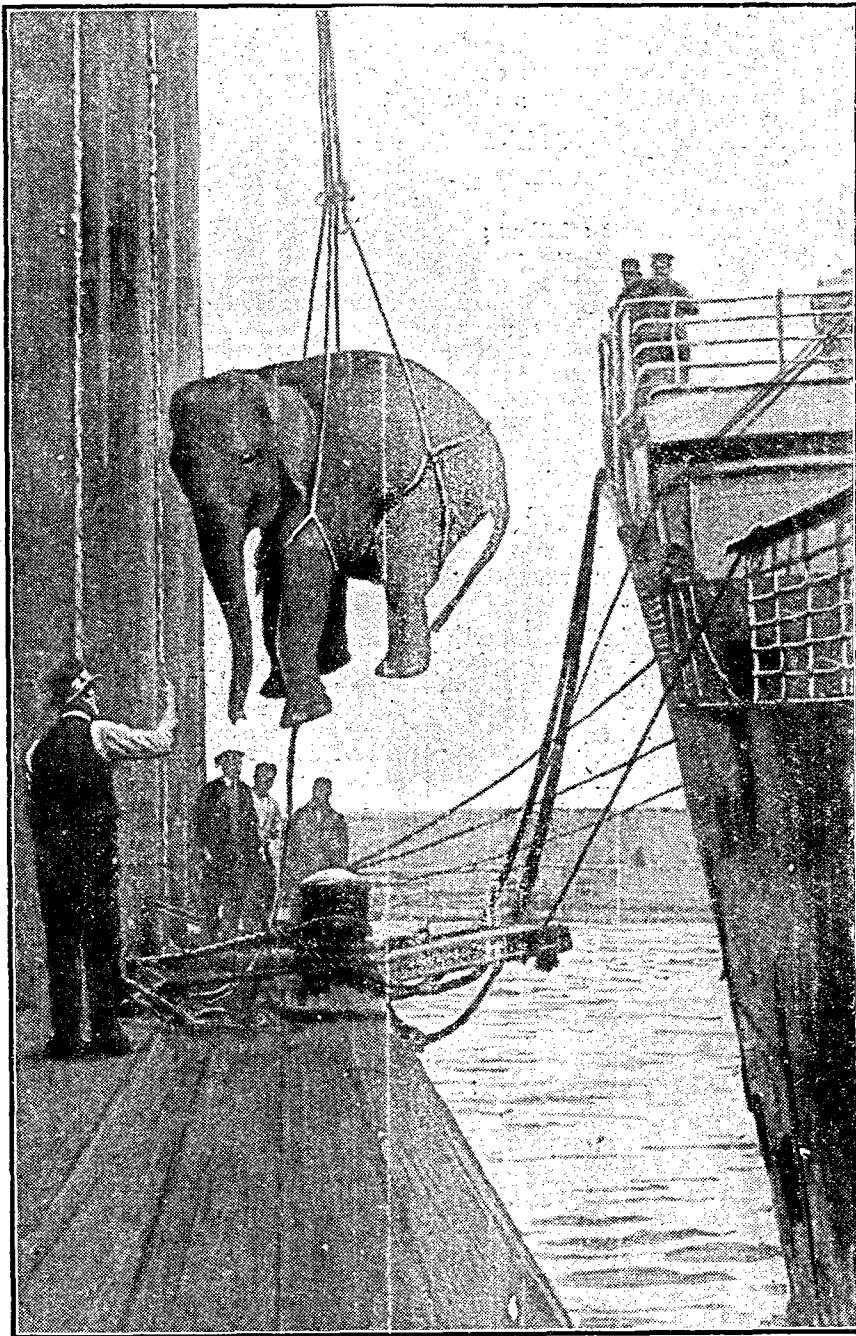
Crocodile Seizes a Mule

But the reptile's offence? That was the misdoing of a crocodile in the Chagres River, in the Panama Canal zone, which flung itself upon an American army mule as the animal was in mid-stream when crossing a ford.

Crocodiles have immense speed in the water, but a mule has equal speed in defence; and as the assailant sought to make his grab the mule lashed out with such force and frequency that once it caught the reptile a blow that lifted it out of the water.

That should have been the time for retreat; but the mule, either too frightened or too stubborn, refused to budge. It remained to abide the con-

Elephant Goes for a Sea Trip



This elephant, weighing about two tons, is being taken on board an Atlantic liner at New York for the sea voyage to Germany, where it will replace some of its unfortunate kin which were killed and eaten during the food shortage caused by the war

sequences, and they were fatal. For the crocodile, guilefully awaiting a better opportunity, made a second and final assault. This time it caught its prey by a leg, and with one huge heave dragged it over, and pulled it into deep water to death.

That grim and horrifying tableau is regarded as unprecedented, and the tale travels round the world as having no parallel. Well, here is something grimmer and still more amazing—the story of how an African crocodile mastered a rhinoceros in just the same way. Next to the elephant the rhinoceros is, with the hippopotamus, the largest land mammal in existence, and the one under notice was a full-grown specimen weighing some tons.

It was drinking in the Thika River, in Kenya Colony, when suddenly one

of its hind legs was gripped in the frightful jaws of a crocodile. The strength of a rhinoceros is prodigious, but the animal here was at some disadvantage through standing in water in its struggle for life.

Of course it did struggle, mightily, but it never caused the reptile for an instant to relax its hold. The rhinoceros kicked and plunged and struggled; the crocodile hung on like a giant bulldog. The reptile won. The monstrous animal was dragged out of its depth, drowned, and devoured.

The battle and its result seem unbelievable, but it was witnessed by human eyes, and photographed again and again in its various phases, to record for ever the frightfulness of combat which marks the life of wild creatures in their native haunts.

A SPECK OF RADIUM

AMERICA'S GIFT TO FRANCE

Clever Woman Discoverer Goes to Bring it Home

ROMANCE OF MADAME CURIE'S LIFE

America is making a present to France of a speck of radium. It weighs a gramme, or less than a thirtieth of an ounce, and yet this speck is worth about £30,000.

So precious is it, and such a difficult substance is radium to deal with, that no ordinary messenger can be trusted with it, and Madame Curie is going to America to receive the radium on behalf of French scientists, and will bring it safely home. The radium is being presented by American women as a recognition of Madame Curie's great work in cancer research.

The French scientific world is jubilant about this gift, and before Madame Curie started a grand gala performance was given at the Paris Opéra in honour of her journey.

The Little Professor

It is fitting that this wonderful woman, who was the actual discoverer of radium, should go to receive the rare gift. She is not a Frenchwoman by birth, but a Pole, and her life is an amazing romance.

Born in 1867, the daughter of a poor Polish professor named Sklodovsky, she spent much of her childhood in the laboratory, and at the age when other girls are playing with dolls she was learning all about chemicals and doing research work on her own account. The students called her the Little Professor.

When she grew up she passed many examinations, and then went to Paris and studied at the famous Sorbonne, where one of her teachers was Professor Curie. Later on she married him, and together they carried on research work in a miserable tumble-down shed which they fitted up as a laboratory.

Polish Woman's Great Discovery

In 1896 Madame Curie, assisted by her husband, discovered radium, and it is no exaggeration to say that her discovery has completely revolutionised science.

From a ton of uranium residue the Curies extracted a grain or so of radium salts, but not long after the discovery Professor Curie dropped the phial containing the precious substance.

There was a great to-do, and every speck of dust in the laboratory was carefully swept up. Then, by long and patient work, the radium was once again extracted from the refuse.

In 1906 Professor Curie was knocked down and killed in a street accident in Paris, and Madame Curie was appointed to succeed him as Professor of Physics at the Sorbonne.

WHY DOES NOT THE WORLD SETTLE DOWN?

PROBLEM OF THE WAR BILL

The Dull Mind of Germany the Real Enemy of Peace

STILL AGAINST THE WORLD

What the world wants most is friendliness everywhere and a return to the steady work that will produce more wealth for free exchange between all countries, to remove the poverty caused by the waste that went on everywhere during the war.

Why can we not have this friendliness instead of the present unrest and suspicion and stagnation? The politicians of all the leading nations meet and talk, and meet and talk again, but real peace, that can only come when men's minds are settled, does not come. Why?

The true answer is that Germany, having made the war and lost it, cannot bring her mind to face the consequences of what she has done and to prepare to make good the damage she has done. She cannot think as all the rest of the world is thinking.

Nation that Could Not See

That has been her evil fate from the first. She could not see in 1914 that all the world wanted peace. She could not see that she failed to strike France helpless at her feet when her first rush towards Paris was stopped. Instead she continued to prolong the war through four weary years. She could not see that by her cruel methods of destruction she was leaving herself friendless among the nations. And now she cannot see that she must pay honestly the debt which her guilt has piled up.

However efficient she may be in the steady industry and in the power of organisation which are her best gifts, she has a dull and unperceiving mind, and always fails to understand how men of other races are looking at her conduct and judging her plain duty to the countries she has wronged.

Failure of Cunning Ways

And so, instead of winning her way back into the friendly circle of the nations and joining frankly in the effort to place the world once more on a footing of mutual helpfulness so that it may recover from its great losses, Germany continues to try to make cunning bargains that cannot be accepted by her creditors; and in that way she keeps alive the distrust and dislike she has created, and all her plans break down, leaving the impression that she will only act with justice when she is compelled to do so.

The last proof of this strange working of the German mind was seen in her offer of her final terms for a friendly settlement with the Allies. In the hope of creating a difference of opinion between the American Republic and their European friends-in-arms she asked the Americans if they would transmit her terms to the Allies.

America Stands by the Allies

This might have served her purpose very well if the terms offered had been such that the American statesmen could have approved as just and adequate; but again the dullness of the German mind in reading the minds of men of other nations, defeated her scheming. Promptly and unerringly the Americans saw the injustice and insufficiency of the German terms and declined to be used as Germany's instruments in a bargain that could not be defended.

The pity of this prolonged attempt by Germany to shirk the sacrifices she must make to regain her place in civilisation is that it keeps the world in a state of uncertainty, anxiety, and wasteful unrest, and puts off the time when the civilised world can settle down again.

THE C.N. LEAGUE OF NATIONS TEST

Two Readers Secure £50 Each

In No. 104 of the C.N. 48 pictures were given showing representative types of the 48 nations associated in the League of Nations, and rewards were offered to those readers who could identify the nationalities.

No one succeeded in doing this for all the pictures, but two readers gave 33 correctly, and the first prize of £100 has been divided between them. They are Rose Löwe, 75, Grange Road, Smethwick; and Walter T. Short, 127, Graham Road, Southampton, who will each receive £50. We congratulate these readers on the knowledge and skill they have shown and on their well-earned success.

The names of the other readers to whom rewards will be sent will be published next week.

These are the correct solutions:

- | | |
|----------------|-------------------|
| 1. Chinese | 25. South African |
| 2. Haitian | 26. Finnish |
| 3. Canadian | 27. Panaman |
| 4. Danish | 28. Honduran |
| 5. Dutch | 29. Indian |
| 6. Portuguese | 30. Paraguayan |
| 7. Colombian | 31. Czecho-Slovak |
| 8. Costa Rican | 32. New Zealander |
| 9. Guatemalan | 33. Siamese |
| 10. Japanese | 34. Cuban |
| 11. Italian | 35. Swiss |
| 12. Norwegian | 36. Liberian |
| 13. Venezuelan | 37. Argentine |
| 14. Uruguayan | 38. Jugo-Slav |
| 15. Swedish | 39. Peruvian |
| 16. Spanish | 40. Polish |
| 17. British | 41. Austrian |
| 18. Bolivian | 42. Luxemburger |
| 19. French | 43. Salvadorian |
| 20. Belgian | 44. Rumanian |
| 21. Persian | 45. Greek |
| 22. Brazilian | 46. Chilean |
| 23. Nicaraguan | 47. Bulgarian |
| 24. Australian | 48. Albanian |

The examination has provided readers with an interesting opportunity of studying the different nationalities of the world.

CRICKET

Oxford Does a Fine Thing

COLLEGES & THE SCHOOLBOYS

The resolution of sixteen of the Oxford colleges to open their cricket grounds, in the evening, to the boys of the elementary schools of the city for practice, each college adopting one school and coaching its team, is a proof of Oxford's public spirit and sportsmanship.

Look at it from whatever side you choose it is equally splendid. True sport knows no class. It rises into the serene atmosphere of simple merit as a sportsman. How fine it is to think that every Oxford boy, however poor he may be, may be linked with a college in the wonderful old city by manly sport if not by costly study.

The colleges too, as we might expect, having adopted the boyhood of the city, are carrying out their scheme in proper style. They are arranging that the lads shall have a cricket outfit which will give them self-respect, and cause them to feel they are not playing at playing cricket, but are engaged in the real game.

Such a scheme is most cheering evidence of soundness of heart and mind in the old university, and it will react in many ways on the whole manhood of the city to its manifest advantage.

In this matter Oxford has scored a new triumph that will reawaken all the echoes of her old renown.

A NEW UNIVERSITY DEGREE

The Prince of Wales has been the first to receive the new degree of Master of Commerce from London University.

He has also been made an honorary Doctor of Science.

CARRYING 1500 MILLION PEOPLE

What the British Railways Did Last Year

A MILLION SEASON TICKET HOLDERS

Last year the railways of the United Kingdom carried over fifteen hundred million passengers.

The exact figures were 1,566,834,000, only 37 millions being first-class passengers and fewer than six millions second class.

The total receipts of the railway companies were £297,800,000 and the net profit £51,300,000.

These figures show a great increase over those for 1919. The trains carried last year nearly 60 million passengers more than in the previous twelve months, and 382,638,000 more than in 1913. No wonder the trains have been crowded, for certainly the rolling stock has not kept pace with the increase of passengers.

There are more than a million season-ticket holders in the United Kingdom at the present time, or nearly double the pre-war number, and the average price per ticket is now £10 18s. 9d.

When we come to goods, however, the figures as compared with pre-war days are not so satisfactory. This is, no doubt, largely due to the increased use of motor transport. The tonnage of merchandise carried in 1920 was 317,877,500, against 304,662,000 tons in 1919, and 364,162,500 in 1913.

Livestock shows the same falling-off. In 1913 nearly 20 million animals were carried on the railways of the United Kingdom, against 17,205,000 in 1917, but last year the figure had dropped to 17,079,000 head.

These are very remarkable figures, and show how vital the railways are to the life and welfare of the community.

SEA WATER FOR LONDON

Ships that Bring It from the Dogger Bank

Sea water is being brought from the North Sea to London at the present time in considerable quantities.

It is used increasingly for medical purposes by hospitals and other institutions, and private patients are also supplied with it in accordance with doctors' instructions.

The water is collected by trawlers on the Dogger Bank, and is drawn up in special receptacles, which are sealed and kept on ice during the journey to port. In this way the water is kept free from any possible contamination.

At the hospitals it is not used for bathing, but for internal application, and has proved very effective in the treatment of infantile cholera, a complaint which works havoc among little children.

Sea water, and, indeed, salt water of any kind, has always been an excellent natural medicine, and its growing use by doctors is a return to nature which is having very beneficial effects.

In pre-war days large quantities of sea-water were brought from the North Sea and supplied to private individuals in barrels for baths and sea salt was also sold in packets for use in baths.

It has even been suggested that one day sea water may be laid on to all our houses just as fresh water is now, but we are afraid it will be a long time before this happy state of affairs comes about.

EVERYBODY'S CHILD

A little motherless lassie of four years old, crossing the Atlantic by a big Cunard steamer to visit her grandfather in England, caused quite a commotion, as all the crew and a queue of passengers competed for the pleasure of seeing after the little passenger during the long voyage.

Who says people are not mostly kind-hearted?

THE RHYTHM OF NATURE

ALL THINGS RELATED TO ONE ANOTHER

Amazing Order of Our Complex World

MAGAZINE OF WONDER AND ROMANCE

How often, standing on the golden beach, have we wondered at the rhythm of the waves, those rolling waters that come up like a whisper and swing back like the echo of a song!

And what could be more wonderful than the rhythm of the worlds as they swing through space? They move in an ordered way as gently as a pendulum, each responding to each.

So it is through Nature and all her kingdoms. There is a little worm whose daily life is ordered by the moon, an astonishing witness—but only one of millions—to the marvellous relation of all things to one another in this intricate yet rhythmical world.

A most entertaining illustrated article on this subject, by Professor J. A. Thomson, is to be found in My Magazine, the mother of the C.N., for June, the varied contents of which may be seen from the list that follows.

THE TERRIBLE KNOWLEDGE OF AN ANIMAL

How Does It Know Where to Strike? THANK GOD FOR EDWIN CHADWICK One of the Greatest Friends the World Ever Had

FOUR BIG WORDS

Graphs, Phones, Scopes, and Meters A PICTURE GALLERY BY THE ARTISTS OF FRANCE

Beautifully Reproduced in Photogravure WHO HAS BETRAYED US?

Again the World Must Choose Between "This Man or Barabbas."

THE OCEAN OF FIRE THAT SWINGS THROUGH SPACE

WHAT THE WORLD WANTS A Fine Series of Pictures Showing the Quaint Dwelling-Places of Many Peoples

THE RHYTHMS OF THE WORLD Beating From Age to Age Throughout All Nature

POOR MEN WHO MADE US RICH The Great Part They Played in Building Up Civilisation

MR. DOBB GIVES A PARTY

A Long Complete Story. This is by no means a complete list, for besides articles there are many verses, stories, and puzzles, and numbers of pictures printed in colours.

It is the magazine that is different from all others. It deals with the romance of life and nature and all the things that really matter.

Ask at the bookstalls now for My Magazine for June.

RING OF TREES

A Worthy War Memorial

The planting of memorial trees to preserve some of the thoughts that filled the minds of the British people during the Great War has already been referred to with admiration in the C.N.

Among the schemes of that kind that are being arranged a high place must be given to the memorial grove planned for Wimbledon Common.

The plan has been prepared by a lady, Miss Agar, the landscape gardener of the Metropolitan Garden Association.

It will cover five acres. There will be five rings of forest trees, crossed by two oak avenues, leading to beautiful views. The big forest trees will be at least 40 feet apart, giving plenty of room for expansion; but while they are young they will be more closely surrounded by trees of a quicker growth.

When these quickly-growing trees have served their purpose of protection the sturdy trees will be cut down, and a stately grove of magnificent trees will stand alone, reminding succeeding generations of the great period when British manhood answered the call of the world to preserve human liberty.

WEALTH FROM THE DESERT

MAKING THE BARREN LANDS FRUITFUL

A New Source of Rubber

DREAM OF THE BOTANIST COMES TRUE

It is the dream of every botanist of vision to make the wilderness blossom like the rose.

One man, Dr. Daniel Trimble MacDougal, a noted American scientist, seems on the point of realising, not, indeed, the poetic picture of the fancy, but a startling practical version of it. He hopes to make the sterile desert yield abounding harvests of rubber.

We have only to remember that rubber was supposed not to grow save in a steamy, tropical climate to realise what a revolution rubber from the arid wilderness represents.

The fact is rubber may be derived from many growths—from stately trees, from huge, creeping vines in the forest, and from modest shrubs and bushes.

Plant Gives Up its Secret

Rubber is simply a sap called latex, a milky, sticky fluid containing resin, designed by Nature to poison any wood-boring insect that may penetrate the rubber-bearing growth, and also to seal up wounds caused by wood-borers or birds and storms.

Now, the discovery of Dr. MacDougal is that a shabby, bush-like plant, called the guayule and related to sage-brush, possesses this protective latex, desert-growth though it be. It is a growth of varied species, and he has been experimenting for five or six years upon those species with a view to discovering which of them, under cultivation, develops the best supply of rubber. He has succeeded in his investigations.

His experiments have been carried out on 600 acres of true desert near the town of Tucson, in Arizona. He has found a guayule which does thrive under cultivation and does yield rubber in regular, paying quantities.

Quality and flow are so satisfactory, we are told, that in the course of the next few years great tracts of desert land in Arizona, New Mexico, and South-East California will be planted with rubber-bearing guayule, so making waste land profitable and enormously increasing the common stock of indispensable rubber available for the world.

And what is possible in the United States will prove possible, it is hoped, in desert land within the British Empire.

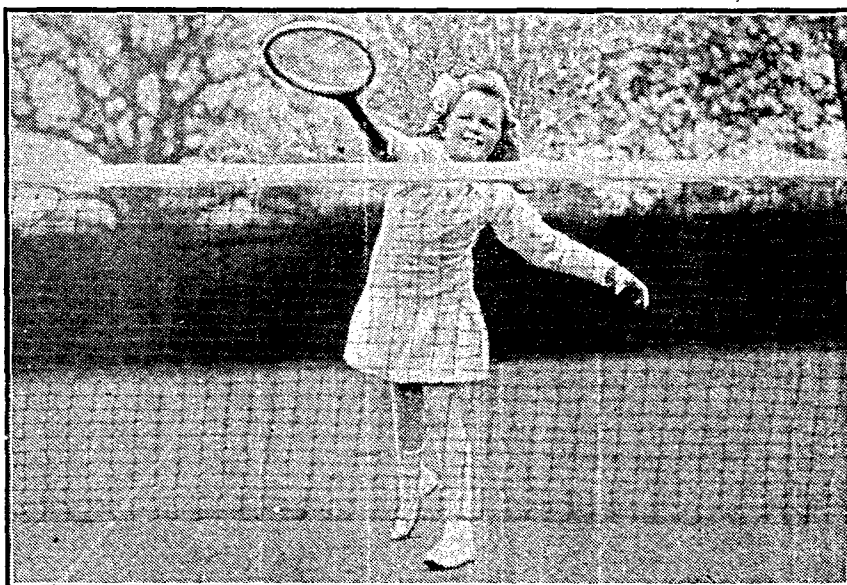
Hope for the Empire's Lost Lands

The conquest of the deserts is a problem of increasing importance. The wilderness tends to extend. Its sands spread and encroach constantly upon cultivated areas. Sand blotted out a rich civilisation in Central Asia centuries ago, just as it blotted out the fallen cities of Babylonia and Assyria.

Sands from the sea form the deadly Goodwins and convert ports into inland towns; sands on dry land, driven by winds, travel on and on, burying green fields and happy homes. To be checked in its slow, relentless march the desert must be planted with growths which can live in wilderness conditions.

Rubber-bearing guayule seems a profitable possibility, but we want a hundred such men as Dr. MacDougal each to find out a hundred such things as the guayule to serve the double purpose of stemming the desert-tide and making the wilderness a land of plenty.

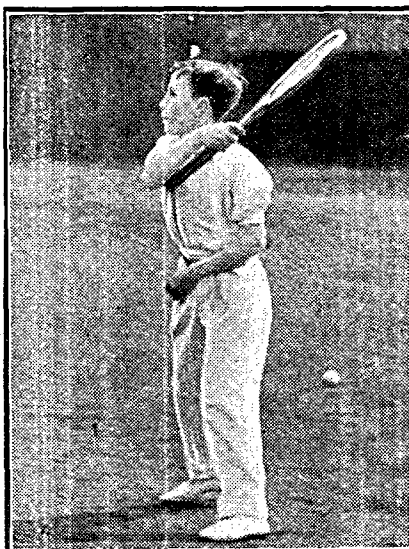
SOME COMING TENNIS CHAMPIONS



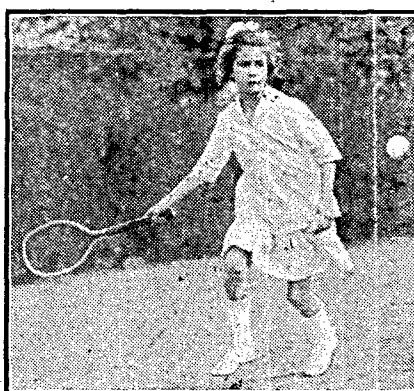
A good net volley



Ready for the ball



Watching his service



A back-line ball



Playing a low shot



A good aim



After taking a ball

Great interest is taken by tennis enthusiasts in the play of boys and girls, from whom will come the British champions of the future to uphold the honour of the country that has made tennis a popular game all over the world. Here we see some promising young exponents of the game at play on the courts

CAMERA MARVEL ENGINEER'S SCIENTIFIC EYE

Pictures Taken in the Millionth of a Second

£20,000,000 DECIDED BY A PHOTOGRAPH

When the first photograph was taken in 1839 it was an interesting and amusing experiment, but little more. Today photography is one of the essentials of science and industry, and without it the engineer would be unable to perform many of his wonders, such as the driving of a floating city like the Olympic across the Atlantic.

The adaptation of photography to engineering is one of the romances of modern science. In some great engineering works as many as 12,000 photographs are printed every week, and these are used in the making of the machinery, in the selling of it, and as permanent records for the purpose of making the replacement of parts easy.

A Hundred Miles of Photographs

One firm has in its files more than half a million different photographs, and these if placed in a row would stretch over a hundred miles, or as far as from London to Leicester or Coventry.

The wonderful perfection today of the turbine which drives the great liner across the seas is largely due to photography, for were it not for the facts revealed by swiftly-taken photographs much of the knowledge which engineers have about stress and strain would be impossible to arrive at.

When the turbine wheels are whirling round at the rate of 3000 revolutions a minute the strain upon certain parts is enormous, but no human eye can follow such rapid motion. The camera, however, beats the human eye, and, as a well-known engineer has said, "The camera with a wink of its eye, taken in one millionth of a second by the light from a single crack of electricity, told engineers how to build turbine wheels that would stand terrific strain."

Record of a Whirling Wheel

A dummy wheel is made of rubber, and as it whirls round at a terrific speed the change in the shape shows where the strain comes, and this is recorded on the photographic plate by an exposure of the millionth part of a second.

Another adaptation of the camera for industry is known as the oscillograph, which makes an actual photograph of the human voice, or of the noise of a motor-car, or of the speed of a bullet, or of the difference in time between the explosion of the two ends of a stick of dynamite.

A wonderful adaptation of photography to commerce was recorded in a great patent case in America, in which rights to the value of twenty million pounds were involved. The only evidence of infringement was a micro-photograph, which enlarged certain typewritten letters 25 diameters, and revealed a slightly-broken letter k and an r rather smaller than its companion letters. These defects, which showed that the letters had been copied, were not visible to the naked eye.

Speeding Up by Photograph

In increasing output in factories the camera is extremely useful. A moving film is taken of the various operations and then run upon the screen at a very slow pace. In this way every detail of movement can be analysed, and steps are then taken to eliminate unnecessary operations on the part of the workers, which are only a waste of time.

What would our forefathers, who had daguerreotypes taken on the beach at the seaside as a piece of holiday fun, have said had they known the importance which photography would assume in the days of their descendants?

WAR ON THE MOSQUITO

GREAT CAMPAIGN BEGUN IN ENGLAND

Tracing the Enemy to His Lair NEW METHODS OF FIGHTING AN OLD PEST

A ruthless war against the mosquito is just beginning in England, and among the munitions that are being used are paraffin, fire, and quicklime.

In this war between man and the insect no quarter is given on either side, and so far as man's intentions are concerned it is a war of extermination.

At this season of the year the mosquitoes begin to fly in massed battalions from their breeding-places in marshes, ponds, and other stagnant waters, and make a well-organised attack on men and women, boys and girls. They are an insistent foe, and nothing will stay their ruthless onslaught but an equally ruthless attack by the other side.

Filling Up the Hoofprints

This war has been carried on for some years past with varying fortunes, but it is now generally recognised by the human authorities that a more intensive form of fighting is necessary if the mosquito is to be conquered.

In some districts arrangements are being made to drain the marshes and small pools, and even the water-pockets caused by the hoofs of horses and oxen must be filled up if the mosquito is to be exterminated by the destruction of his breeding-places.

In other districts, as at Freshwater in the Isle of Wight, experiments are being made with fire and quicklime. The rushes and grasses on the marshy grounds are being set on fire, and the ground and water treated with copious doses of quicklime. In this way it is hoped to destroy the mosquito in his lair. The people in the Isle of Wight are greatly interested in the experiments, as last year they suffered severely from the depredations of the pest.

A Bitter Foe of Man

There are, of course, mosquitoes and mosquitoes. Some are simply very annoying, causing much pain and irritation and swelling by their bites on face and arm and ankle. But others are positively dangerous. The malaria mosquito, called by entomologists anopheles, has probably been responsible for more human deaths than all the wars of all the nations since time began.

For centuries it prevented men from living in certain areas of the world; and only when the Americans, by waging a successful war against it in Panama, had driven it from the country could the canal be cut which joined the Pacific and Atlantic oceans.

Aeroplanes to Fight the Insects

In some parts of America where the war against the mosquito is being waged on scientific lines aeroplanes are flying over the inaccessible breeding-grounds of the pest, and coating the waters with a thin film of paraffin. In this way millions of the larvae are slain, and the armies of the following spring and summer are correspondingly reduced.

Cases of malaria caused by mosquitoes have occurred recently in England, and it therefore behoves every one of us at this season to join up and do his best in helping to win the war against the mosquito, which causes so much suffering and inconvenience and danger to life.

Only by the combined efforts of all of us can the insects be conquered, and one little area of undrained puddles and unfilled hoof-prints in a district may produce enough mosquitoes to invade several square miles, and cause untold misery, if not worse, to thousands of the population.

HARNESSING THE WILL O' THE WISP

EVERY FARM WITH ITS OWN GASWORKS

Interesting Experiment in the Countryside

GETTING POWER FROM DEAD LEAVES

An interesting experiment is now being carried out on a Surrey farm which is spoken of as harnessing the will o' the wisp.

The scheme is to produce sufficient marsh gas from the manure and decaying vegetable matter on the farm to supply all the light and power needed for the agricultural operations. It is a great idea, and, if successful, may revolutionise farming all over the world.

During the war it was discovered that marsh gas, or carburetted hydrogen, could be generated in sufficient quantities to be of practical use, and under the present plan a simple building is erected into which the manure and dead leaves are pitched, and the gas given off is collected for use.

Power Running to Waste

In this way not only is a source of power now running to waste chained for use, but the manure itself is protected from the weather and rendered more valuable by the retention of properties that are now allowed to escape.

The apparatus needed is inexpensive. Practically all that is wanted is an airtight reservoir and a pipe leading into it from the manure store. The only doubt that seems to be entertained is whether the supply of gas will be regular enough.

While this plan is described as harnessing the will o' the wisp, it must be remembered that that is only a picturesque way of referring to the use of marsh gas.

New Field for Science

Much has been written about the elusive and flickering light of the will o' the wisp, or ignis fatuus, also called jack o' lantern, and the older writers give very circumstantial accounts of its appearance, some even declaring that they have lighted paper and sticks in its flame, while others maintain that it has no heat at all.

But the strange thing is that there has been very little scientific investigation into the matter, and modern science is sceptical about its very existence. Practically nothing is to be found in recent scientific works about the phenomenon, and almost the only modern scientist who has studied the matter, Professor Nathaniel Shaler, does not believe there is any will o' the wisp at all.

A Probable Explanation

Although he spent a great deal of time in marshy areas he was never able to see any sign of it. Looking fixedly into any darkness, such as is afforded by the depths of a wood, he says, the eye is apt to imagine the appearance of faint lights. Those who have had to do with outpost duty in an army know how the anxious sentry will often imagine that he sees lights before him, and sometimes fire at them. These facts make it seem probable that the jack o' lantern and his companion the will o' the wisp are stories of the over-credulous.

Dr. Shaler points out with regard to the usual explanation, which says the phenomenon is caused by marsh gas, that a gas of any kind would disperse itself in the air. It could never dance about as these lights are said to do, and there is no chemical means known whereby it could be produced in sufficient purity and quantity from the earth to fit the facts described.

If there is actually a will o' the wisp, then some other explanation must be found to fit the facts.

WOUNDED HAWK'S LONG JOURNEY

Terrible Flight of Two Thousand Miles

TRANSFIXED BY A SPEAR

A Transvaal newspaper publishes an extraordinary story showing the tenacity of life of a hawk.

As the bird was swooping on the poultry yard of a farmer on the Vaal River the farmer shot and killed it. Then he found embedded in its body what appeared to be an arrow, 2 ft. 6 in. in length, that apparently had been carried by the bird for a considerable period.

As the arrow was of a peculiar kind unknown in the Transvaal inquiries were made and a description given, and presently it was found that the arrow was made by a native tribe, the Akambas, of Kenya, 2000 miles away from the place where the hawk was killed.

Further inquiries showed that the transfixing of the hawk by a small spear, by an Akamba native, was well remembered. The hawk had caused much loss in a chicken run, and was speared by a concealed native, but was rescued and carried off by its mate, and evidently recovered from the wound though it could not rid itself of the spear.

SCHOOLGIRL'S TRIUMPH

15-Year-Old Artist's Pictures in the Royal Academy

We offer hearty congratulations to Eileen Soper of Welwyn, who at the age of 15, while still a schoolgirl, finds herself a successful exhibitor at the 1921 Royal Academy show.

The explanation of Eileen's success is that she has an artist father; but a still better reason is that she has skill as a sketcher and an eye that takes a delight in the grace of childish movement.

Her two successful etchings both include children at play.

Already she seems to have won enough admiration on both sides of the Atlantic to warrant the belief that she will rank among artists to whom charming work seems natural. *Portrait on page 12*

RESCUING A PRISONER

Bird that Showed the Way

From Bournemouth a reader sends a well-told instance of helpfulness between birds.

I noticed a sparrow fluttering anxiously against a garden shed with glass windows. There was evidently something interesting inside, so I watched.

Suddenly from the inside something bumped against the window too. It was another sparrow, locked in.

The one outside seemed heartbroken. It flew round and round the shed, twittering loudly. At last it alighted at the foot of one of the windows, looked up, and then fluttered on to the ledge, twittering something to the other bird, who flew down and emerged from a small hole, which the outside bird had evidently seen and told it of.

ANIMALS IN A PANIC

Sheep Scared by the Night

Tens of thousands of sheep jumped over the hurdles which penned them in recently, during a very dark night, and the next morning they were found scattered over quite long distances.

A similar panic occurred in Cambridgeshire a short time ago, and naturalists have been giving reasons for these panics caused by darkness.

Only those who have been out in the open country during a really black night can realise the peculiar effect it has.

Most animals can see just enough to keep them from being frightened on an ordinary night; but when low, heavy clouds make the darkness impenetrable, they become frightened, and sheep especially become panic-stricken and make a mad rush to get away from it.

THE WEEK IN HISTORY

GREAT IRISH PATRIOT

The Grand Old Man

POPE'S PLACE IN ENGLISH LITERATURE

May 15. Daniel O'Connell died at Genoa . . . 1847
16. The Battle of Albuera 1811
17. Prince Talleyrand died in Paris 1838
18. Peace Conference began at Pretoria . . . 1902
19. Gladstone died at Hawarden 1898
20. Columbus died at Valladolid 1506
21. Alexander Pope born in London 1688

Daniel O'Connell

DANIEL O'CONNELL was an Irish Catholic gentleman, lawyer, orator, and national leader, who for a third of a century, before his death stirred up his countrymen to demand reforms in the government of their land.

The changes he sought to bring about were varied from time to time. At first they chiefly concerned religion. He was the champion of Catholic emancipation, which claimed for Roman Catholics the same public rights that Protestants enjoyed.

Later, he tried to alter the Act of Union and to restore to Ireland her own Parliament—that is, he was what afterwards was called a Home Ruler.

Though O'Connell used very strong words in his speeches, and was much abused by his opponents, he really was of a conservative tone of mind, and always refused to be associated with violence and crime.

If his aims had been attained they would now be in accord with the views of all British political parties, though in his own day they sent him to prison, where he was seized by the illness from which he died while he was trying to reach Rome.

William Ewart Gladstone

WILLIAM EWART GLADSTONE was one of the giants of British parliamentary life, and he came to be known affectionately as the Grand Old Man.

From youth to old age he was busy in Parliament, and from first to last was gradually changing in the direction of trusting the people with more power.

Beginning as a stern Tory, he became a Conservative, a Whig, a Liberal, and at last almost a Radical; and as he changed, during more than 60 years of parliamentary life, he made hosts of new friends and new enemies. No man was more nearly worshipped on the one hand or more bitterly denounced on the other hand.

All that feeling has subsided now, and his countrymen see in Gladstone the wise statesman who quietly moulded the laws of his country to suit the changing needs of his time, and who would have prevented many difficulties of the future if his sage advice had been more fully followed.

He was also a great financier, perhaps the greatest England ever had, a superb orator, and a pure-minded Christian. It may be questioned whether the British Parliament has produced any other figure as variously great.

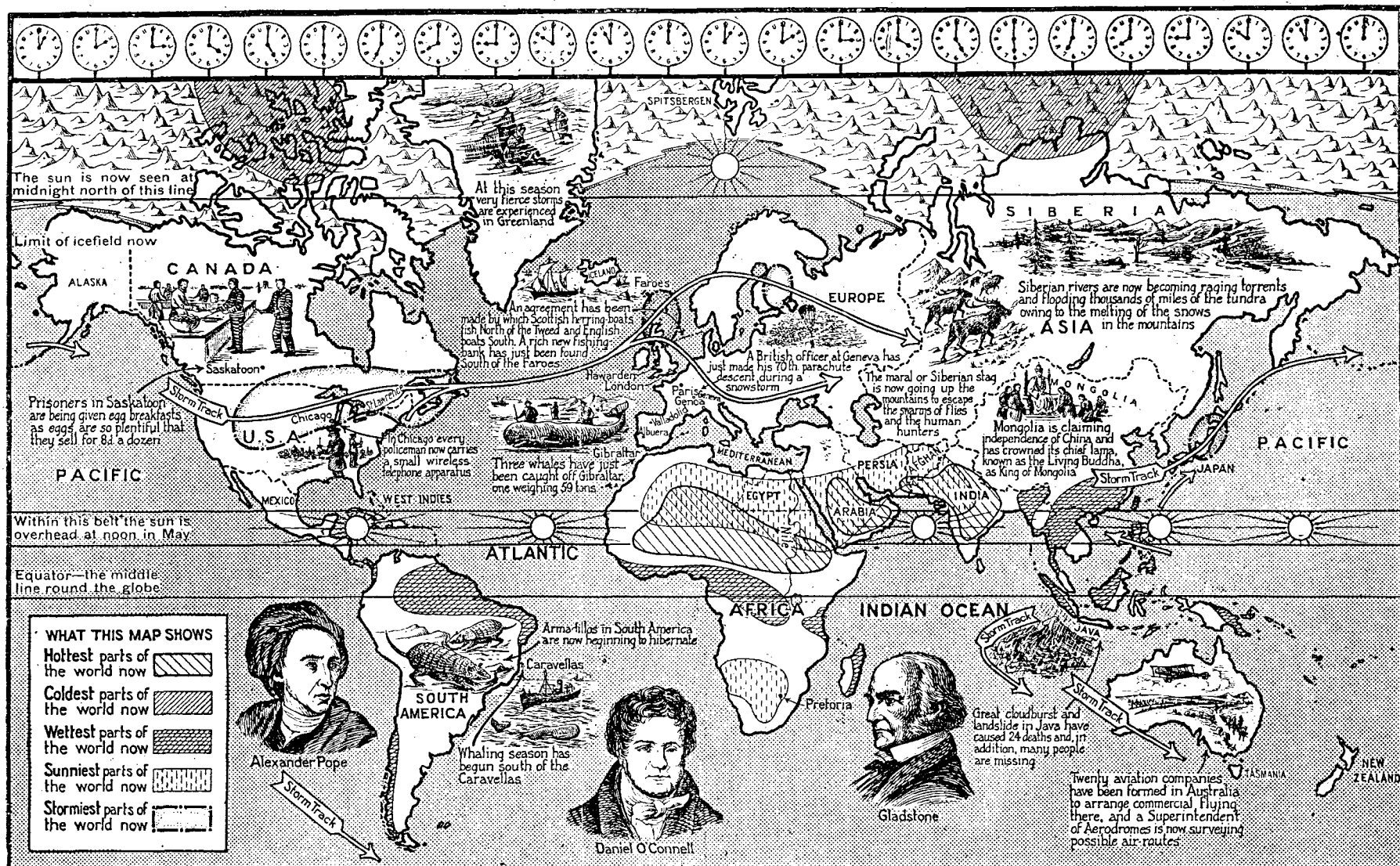
Alexander Pope

ALEXANDER POPE is a kind of central poet standing between the great early poetry of the English language—Chaucer, Spenser, Shakespeare, and Milton—and the later glorious outburst of song in Wordsworth, Shelley, Keats, and Tennyson. And, as becomes a central place, he is a trim, regular, formal, clever poet, workmanlike rather than inspired.

As a man Pope is one of the most interesting of the poets. In body small and deformed, his mind seemed to take a twist too, for he was petty and vindictive. Yet he had sturdy qualities, such as faithfulness to his religious principles as a Catholic, industry, and a spirit of independence.

He steadily wrote his way to competence and fame through verse that is sound if not fine or great.

PICTURE-NEWS & TIME MAP SHOWING WEATHER EVENTS ALL OVER THE WORLD



BITTEN BY AN ADDER Boy Scouts Save a Companion's Life

Two Boy Scouts in Natal have received congratulations from the Fourth Durban Scouts for their presence of mind and quickness in counteracting the bite of an adder.

In Natal the Scouts carry a snake-bite outfit, and it was well for Norman Noel that they do.

He was playing on the bank of the Twin Streams at Ixopo while Scouts Travers and Alec Hartley, aged 11 and 13, were bathing, and there an adder bit him.

The boys at once, a few seconds after the bite, brought their outfit into use. Travers made incisions alongside the bite with a lancet and rubbed in permanganate, while Alec tore his vest into ribbons for tight ligatures. Then they carried off their patient in a barrow.

His recovery is believed to be entirely due to their quickness and their skill in scout-craft.

C.N.'s LONG JOURNEY Land Where the Stars Shine Like Lamps

A lassie who has come home to England from Ceylon writes with enthusiasm of that tropical paradise.

We lived right up in the hills, in a climate almost the same as that of England. The afternoons are very hot, with the temperature often up to 120° in the hot season, but directly the sun goes down the wind is very cold.

In the night the stars are lovely—double the brilliance of the stars seen in England. And the sunsets are simply gorgeous.

I love that island of tropical forest, tea, and coconuts, and often wish to be back again.

I first saw the C.N. at school out there, but when it reached me it was very ragged and crumpled, having passed through thirty hands.

READY FOR BREAKFAST Hens Bring Their Eggs to the Kitchen

Three readers describe fanciful places in which hens choose to lay eggs.

One of our neighbour's fowls, says a Leicestershire reader, cannot agree to lay her eggs in the nests where the other fowls lay, so for some time she has walked through the kitchen, the door of which is generally open, and has laid her egg in a corner on a bag placed there for the dog.

She will do this while the family are at breakfast. When the egg is laid she goes out into the farmyard cackling as loudly as ever she can.

We have a hen, says a Bedfordshire reader, that will lay its egg nowhere except in the kitchen. It flies on to the window-sill and taps on the window when it wants to lay an egg, and we at once let it in.

If there are any crumbs about it will pick them up, and then go straight under the table and lay an egg. Then it will go outside and cackle.

It is a tame hen, and will let you stroke it, and will feed out of your hand.

This story comes from North Devon.

An Indian game hen does not condescend to mix with her friends when she lays. She walks proudly to a fir-tree, flies to a branch about eight feet from the ground, and lays her egg there.

It falls to the ground on the grass underneath, but seldom breaks.

Then she flies proudly down and runs to her friends to tell them of her feat.

HEROES OF THE BOYS' BRIGADE

Gallant Rescue from the Sea

Privates Harry Cash and Norman Coates of the 8th Company of the Dublin Battalion of the Boys' Brigade have received the Brigade Cross for heroism in saving from drowning a boy who was carried by a strong current into a dangerous part of the sea off Dublin. The boy's sister was also carried away, and she was drowned.

TIED TO A TREE Musical Conductor's Curious Training

The most eminent of British women musicians, Dr. Ethel Smyth, has been letting the world know more than it had ever guessed about the training necessary for the conducting of a choir or orchestra in a grand performance.

She has been practising how to conduct a twenty minutes' selection—a duet from her own opera, *The Wreckers*—and not only has she gone into training to fit herself for the exercise involved, but she has had to tie herself up to a tree out of doors, and to a chair indoors, in order that she may keep her body still while her arms are whirling instructions to the performers.

Everybody who has watched famous conductors, from the frantic Sousa to the delicate Bantock, with a baton a little bigger than a lead pencil, must have wondered how it could be done.

Evidently, from Dr. Ethel Smyth's experience, the problem is how to balance energy and restraint.

THE YOUNG VISITOR Alligator Goes to the Post

Several Australian readers send us an account of a curious occurrence at Townsville in Queensland.

A policeman who went to the post-office at 2 o'clock in the morning to post a letter found on the steps, in front of the posting boxes, an alligator about five feet long.

His attention was first drawn to it by an uncanny grunt.

The animal evidently had travelled into the town from Ross Creek. It was captured and caged.

Pronunciations in this Paper

Albuera	Ahl-booy-rah
Curie	Koo-ree
Guérin	Gay-ran
Hawarden	Har-den
Sorbonne	Sor-bon
Valladolid	Val-yah-tho-leeth
Yerkes	Yer-kiz

THE SACRED WAY How France Will Remember the Men of Verdun

The French people have lovely flashes of heroic feeling.

On the great French road that leads toward Verdun, a road trodden by hundreds of thousands of Frenchmen who marched to death to make good their country's vow "They shall not pass" as Germany flung her mightiest armies month after month against Verdun, they are about to erect a triumphal arch.

For thousands of years men have reared beautiful arches of lasting stone to commemorate their triumphs in war; but never has an arch been raised that will express such feeling as France will put into this sign of her agony and sacrifice and triumph.

That road to the most dreadful of all battlefields is her Sacred Way, hallowed by the loss of her bravest sons. It will not be thought of as a road to conquest, but as the way that led to the last stern stand in desperate defence of France's life and freedom.

A SWAN'S NEST

A Wiltshire boy has been watching the making of a swan's nest.

A pair of swans have built their nest near my home. First they made it like a moorhen's nest, but bigger round. Then they wove more weeds underneath to raise it higher—three and a half feet off the ground.

Next the female bird lined the bed with down, and laid her eggs. While the female bird is on the nest the male bird guards it, swimming up and down. When she wants food he fetches it, but he never sits on the eggs.

We only watch the nest from a distance, because the swans are so fierce when we go near.

CHILDREN'S NEWSPAPER

MAY 14. 1921

Home Again

HOME again in Little Treasure Island, back in England in the springtime—what glory can befall a man greater than that?

It is good to see the rare and lovely land of France, to ride up her mountains and rest under her palms. But, oh, how good it is to see the white walls of Old England once again, to tread the soil that Shakespeare trod, to breathe the air that Wordsworth breathed!

Back to our country lanes, their hedgerows bursting with new life; back to the tulips and the daffodils; back in time to greet the nightingale. Who would not come a thousand miles to see the bluebells once again, to hear the chaffinch singing in an English wood, to see our oaks putting on new strength, our gardens breaking into life?

Our little land has no vast distances; no mighty mountains rise up from its plains; but for the little roads that seem to lead to Paradise, for all those gracious, natural things that make this earth so sweet, she is matchless under the sun.

And is she not even now, in these sad days, the noblest sight this earth affords? The world has come to a dark and narrow pass; our earth is strewn with the wreck of human hopes. All over Europe men are discontented; they feel that they have been betrayed; they have no faith left in governments; they long for the new heaven and earth that never come.

But not in any other land has patience been so great as here. Have we not come through strife unparalleled, through dangers that threatened to break us? Have we not seen again and again that our people's hearts are true?

We have seen it all, and all the time this land has borne a burden on her back that no other land has borne, for she has paid her way and suffered taxation that other nations dare not face. She bore the heat and burden of the war; she carried on when her heart was well-nigh broken, and still she goes her way, with trouble all around her and within; she holds up her head as the shadows pass. So, with patience and a quenchless hope, she stands before the world, prepared to ride through storms another thousand years if only she may save her soul and guard our human liberty.

And so it is good to be back again, to stand where English violets grow, to thrill at the sight of our leaping hills; to feel that if dangers come they pass away, and to believe that, as all the hopes of spring come true, as summer will tip our fields with gold, so all the dreams of men will yet come true, and Time will crown our days with perfect peace.

A. M.



THE EDITOR'S TABLE

Fleetway House, Farringdon Street, London
above the hidden waters of the ancient River
Fleet, the cradle of the Journalism of the world



The True Test

THE milking of a cow in public at Toronto recently was hardly proof that the Canadian politician who did it was fit to be Minister of Agriculture. He was the Minister, and to show his fitness he milked a cow, and people said, "That's the man for the job."

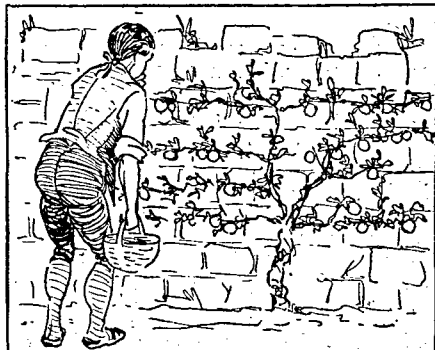
But did milking a cow prove any fitness beyond being able to milk a cow? It is a useful knack, but it will not qualify anyone to set up in business as a State Minister.

In very much the same way school and college examinations may be said to be necessary, as far as they go; but they do not go very far. It is doing things in life that matters most.

Of course, very often those who can do well in examinations can also do well when they begin to use in practical ways the knowledge they collected for the examinations. But some who succeed on paper cannot go far beyond, and others can do things far better than they can answer questions on paper; and of both these kinds of people examinations are not a true test.

"Bah!" said Napoleon. "I can find men who could translate from any language, yet couldn't lead fifteen men."

Proverb of the Day



To a Snob:

Ripe Fruit May Grow on a Rough Wall

The Poverty of Judges

IT is understood that an exceedingly bitter cry is being raised by the judges, who, when they have paid their income tax, have only £3500 left.

That, they contend, is a sum they cannot live on in reasonable comfort and support a family.

For them is the fact that if they were not judges they would, perhaps, be earning three or four times as much. Against them is the fact that if they retire unwell they will have a substantial pension.

But what of the useful millions who are anxiously striving to reach or keep one-tenth as much? Why should not judges take their fair share in the most excellent practice of trying to do without unnecessary things?

God is Near

Before me, even as behind,
God is, and all is well.

WHITTIER

THE Meanest Creature in the World ARE not the meanest men on earth these window slashers? To annoy the State they cut out some poor man's shop window and count themselves, no doubt, heroic.

Well, there are heroisms that are terrible enough, but what sort of a hero must he be who breaks the windows of the shop run for the blind men from the war? A pitiful creature he must be who thus wreaks his miserable vengeance on those who gave their eyes to save his liberty.

Tip-Cat

IT's the little things that count, remarks a contemporary. But not till they are big enough to learn the multiplication table.

PAINT-POTS: Distinguished artists.

PROFESSOR WALKER says we could save twenty millions in every hundred by reformed spelling. All that's needed is a new spell of economy.

AT Willesden, according to statistics, only ten people in every thousand die. What becomes of all the others?

VISCOUNT BURNHAM considers that press photography is one of the minor tragedies of life. It has everybody's head in the noose.

THERE is a slump in motor-cars. Those who once wanted to be in the swim are now contented to arrive at a Ford.

"SANITY in the market," a newspaper says. That, at any rate, is one of the things the Government cannot control.

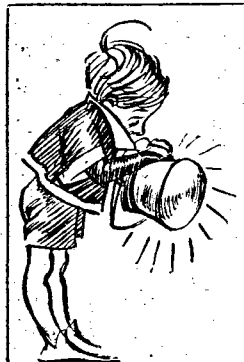
Competition in Kindness

WE have mentioned lately the kind feeling of boys towards birds in the northern homes of the fieldfare—Norway, Sweden, and Finland—and their astonishment that any boy should be anything but kind to birds, and so allow them to be tame though free.

A reader who has been visiting Gratz, the capital of Styria, a province of Austria, puts forward a claim for equal kindness in the Styrian people.

He saw these people "give way to the birds" as they strolled in the parks. If you sat on a bench the birds gathered round you, settling on the bench and eating from your hand. He thinks Styrian boys may shake hands with Norwegian boys by right of the kindness both feel towards birds.

We make a claim also on behalf of London children. Delightful scenes, such as our correspondent describes, may be seen often in London parks.



PETER PUCK
WANTS TO KNOW
How eleven cricketers
can ever make a score

Poems of Peter Puck

Let Dogs Delight

WHEN masters and men are at it again,
And back to the melting-pot everything goes,
Though all should be wrecked,
I am glad to reflect
That Nature is quietly bringing
the rose.

THE roarings of strife are disturbing my wife,
Who says she will soon have a cold in her nose;
But I tell her the miner is nothing—far finer
The beautiful blush of a mid-summer rose.

MY children grow thinner for want of a dinner,
And fireless they freeze in their fingers and toes,
But I tell them it's spring, and a lovelier thing
Than a scuttle of Wallsend is England's red rose.

OVER wages and hours, and ignoring the flowers,
How angry, how savage, how reckless man grows;
But how peaceful the earth, which is bringing to birth
That extremely fine splendour, a little red rose!

Quite a Mistake

By Our Town Girl in the Country

THERE goes Mr Billy Creek, a sodden bundle of ragged corduroys, with humped shoulders, and only a grey moustache appearing between hat and collar to prove that he has a face.

They say that he is fabulously rich; at any rate, he farms a tidy bit of land and has a good-sized, grimy house standing in a dreary waste of currant bushes. He can't read, but he's got a wonderful eye for pigs.

One day he and the lad who is his only labourer were cleaning out the byre when a smartly-dressed young woman came up and said:

"Is this Mr. William Creek's, or have I been misdirected?"

Bill was so overcome by her high heels, pince-nez, and severe look, that he only just managed to say that he was William Creek. The young woman looked taken aback and said:

"Mr. William Creek, of Ben Bowes Garth?"

When the boy assured her "that was master all right" she proceeded. "I've come to see him about the advertisement."

"What 'un?"

"The advertisement for a secretary knowing French, Spanish, and shorthand, to assist refined literary man."

She produced a cutting confirming her statement and asking applicants to call. She was the first of three.

Billy Creek has never discovered who played the trick nor recovered from the joke. He goes about suspecting us all, and is as surly as one of his own sheep-dogs.

PASSING OF THE PRAIRIE DOG LITTLE RODENT THAT DESTROYS CROPS

**Burrows Covering Thousands
of Miles**

MAN'S BATTLE WITH THE WILD

News has just come from America that the long battle which the North American farmers have been waging against the prairie dog—one of the most destructive rodents of the animal world—is, at last, coming to an end. Thousands of acres of land hitherto rendered useless by the depredations of these little creatures will soon be brought into cultivation.

The prairie dog is really not a dog at all, but a tiny marmot. Thirty years ago swarms of prairie dogs lived in burrows on the plains of North America and caused immense destruction to the grass and crops.

Millions of Pounds Lost

On the great cattle ranches of the Kansas plains these pests cost the cattle-owners losses running into millions of pounds each year.

Dwelling underground in burrows, they would leave the plains as bare as the rabbit leaves the country districts of Australia, but there is this difference between the prairie dog and the rabbit—the American animal eats only grass roots and the roots of crops, so that they wither and perish; the rabbit eats the grass itself, which grows again; yet, of the two, the rabbit is probably the worse sinner, for he multiplies more quickly, and, despite fifty years or more of organised effort to keep him down, he is more numerous today than ever before.

But the prairie dog of the North American plains seems to be going the way the buffalo went. Thirty years ago his underground burrows—called towns—covered thousands of square miles of country and had several million inhabitants.

Today the largest town covers less than a hundred acres, and there are few towns of as much as ten acres.

The methods adopted by the American Government, which supplied the farmers and cattlemen with baits chemically prepared, to be laid near burrows, have reduced the scourge to vanishing point.

More Land for Cultivation

In some counties in Kansas only a few hundred prairie dogs are to be found where, in bygone days, tens of thousands existed.

This winter has seen a great falling off in the demand for baits—a sure indication that the dogs are becoming scarce. In a few years' time they will doubtless be only a memory—a relic of the past.

Meanwhile, thousands of acres of land formerly given over to the burrows of the prairie dogs are coming once more into cultivation.

These rodents must not be confused with the coyotes, or prairie wolves, of North America—animals which attack sheep and cattle, and are something between wolves and jackals.

The nearest approach to the coyote in Australia is the dingo, the wild dog that lives in the far western country of New South Wales and in parts of the Northern Territory.

These animals, like the prairie dogs of North America, are fast disappearing as settlement moves onward. See *World Map*

IN THE AUCTION ROOMS

The following prices have lately been paid in the auction rooms for objects of interest:

58 illuminated manuscripts . . .	£130,325
Suit of 15 century German armour . . .	£4830
A 15th century Italian sword . . .	£3097
Six feet of 18th century altar lace . . .	£1268
First edition of Burns's poems . . .	£505
A pair of stirrups, 1630 . . .	£441
A Venetian lace tablecloth . . .	£320
A Syracuse coin of B.C. 410 . . .	£300
A drawing by Rossetti . . .	£150

NEWS FROM EVERYWHERE

Many birds have built nests on the lamp-posts in the Mall, London.

A six-months-old baby has flown from Paris to London, and seemed to enjoy the trip immensely.

After Many Days

A letter posted in Southampton fourteen years ago has just been delivered at Romsey.

A Shipping Record

The steamship Empress of Britain recently took on board 3200 tons of oil fuel in seven and a half hours, breaking all records.

Rationing Speech

Brighton Town Council has introduced a rule prohibiting its members from making a speech more than five minutes in length.

Pigeon Foster Mother

An Isle of Wight reader reports the hatching of a hen's egg by a broody pigeon, which proved to be quite a good mother to the chick.

Last year's Hospital Sunday Fund amounted to £106,455, which was £31,854 above the total for 1919.

Robins made a nest and laid their eggs in a half-finished settee in a Bath workshop.

Belgium's Stolen Machinery

Nearly 22,000 of the 25,000 manufacturing machines stolen from Belgium by the Germans have been restored.

Heron Beaten by Rooks

A fight in the air between a heron and four rooks resulted in victory for the rooks, who drove off the heron.

Walking 300,000 Miles

After 40 years' service, during which he walked over 300,000 miles, Henry Morgan, Chorley's oldest postman, has retired.

London's Street Accidents

There were 21,660 street accidents in London last year, in which 657 people were killed and 21,003 injured. The accidents in 1919 totalled 16,226.

VICAR CAPTAINS THE FIRE BRIGADE



The Vicar of Hungerford, the Rev. F. S. Gray, has become captain of the local fire brigade, and here we see him in his uniform and brass helmet superintending a practice with the hose.

THE CAPTURED BALLOON Sweep Who Won the O.B.E.

At Earl's Court, London, a barrow, pushed through the streets, bears on its side the inscription:

J. BRIXEY, O.B.E., Chimney Sweep

Mr. Brixey won the Order of the British Empire in 1919, as a special constable, by a duty smartly performed.

A tethered Air Force observation balloon got loose, and floated down on the houses till its basket was wedged in an area, and the inflated balloon flopped against the house roof.

Special Constable Brixey, having first observed that no one was in the basket, climbed the roof, found the gas plug, and let the gas out of the balloon. Then, with others, he rolled the balloon up and returned it to the Air Force, and, as he modestly admits, went home and thought no more about it.

But what he heard further about it was that he had been given the O.B.E. and the British Empire Medal.

WORLD CHESS CHAMPION Cuba Beats Germany

The victory of Signor Capablanca of Cuba over Dr. Lasker of Germany in the match for the chess championship of the world was expected, and was handsomely won.

Dr. Lasker had held the premier place in the chess world for over a quarter of a century. Like Capablanca, he was young when he took the lead—only 27—and he was willing to surrender to the young Cuban without a contest; but this Capablanca naturally objected to. He desired to win the championship.

Of the 24 games planned 14 were played out, ten being drawn and four won by Capablanca, who looked as if he would win the fifteenth game also when Dr. Lasker resigned the match.

It was a clearly-won championship by the man who at the present time is the best player and one of the cleverest chess-masters who has ever sat before the chequered board.

DIGGING UP OLD LONDON

REMARKABLE DISCOVERY NEAR THE THAMES

**Bridge Over Which Wat Tyler
Marched**

BOADICEA'S DEVASTATED AREA

During the last week or two some of the most interesting relics of old London that have ever been found have been dug up in King William Street, where excavations are going on for the foundations of a great skyscraper building.

In digging down the workmen uncovered an old stone arch which was evidently one of the arches of the very first stone bridge that ever crossed the Thames. It was begun in 1176, when Henry II, the first Plantagenet king, was on the throne, and the original architect, Peter chaplain of St. Mary Colechurch, died before it was finished.

Those were days when building bridges was regarded as a pious work, and, indeed, there was in France an order of monks known as the Bridge-Building Brothers. One of these was recommended to succeed Peter as architect by King John, who wrote to the Lord Mayor of London: "We trust in the Lord that this bridge so requisite for you and all who shall pass the same will, through his industry and the divine blessing, soon be finished."

Arch that Could a Tale Unfold

Now one of the very arches built at that distant time has been brought into the light of day. What a marvellous discovery it is, and what a romance clusters round that old piece of masonry! What a wonderful story it could tell of the great personages and historic processions that passed over it during the six and a half centuries that the old bridge was used!

On the gatehouse above it were exposed the heads of Sir William Wallace, Jack Cade, Sir Thomas More, and numerous other well-known characters in English history. It witnessed scenes of fire and pillage and insurrection and popular tumult and royal pageant.

Architect Buried on a Bridge

From the top of the bridge of which this is a part the people of London in 1264 attacked Queen Eleanor when she tried to shoot under the bridge in her barge. Across this arch Wat Tyler and his rebel horde entered the city in 1381; here, in 1392, Richard II. was received in great pomp by the citizens, and over the same arch in 1422 came the funeral procession of Henry V.

Then, again, it was across this arch that Jack Cade marched with his army and took possession of the capital, striking with his sword upon old London Stone and crying, "Now is Mortimer lord of this city."

The bridge had a chapel dedicated to Thomas Becket about half-way across, and in this was buried the original architect, Peter. How strange to be buried on a bridge! Houses and shops lined the sides of the bridge, and these were burned in the Great Fire of 1666.

The First Fire of London

But this is not the only discovery that has been made at this spot. The diggers have also uncovered a long layer of burnt clay and wood which authorities agree is a relic of the very first fire of London, when Boadicea marched to the capital, slew the Romans, and burned their dwellings.

The charred wood of the roof-beams of some of these Roman houses has actually been dug out, and is to find a place in London's great museum at the Guildhall. Other discoveries include coins of the Emperor Claudius.

The arch, however, is the most interesting find, and its position proves that the River Thames was formerly much wider before the building of quays and wharves had confined it in a narrower and deeper channel.

MR. SPEAKER FIRST COMMONER OF THE REALM

Member of Parliament Who
Cried Bo!

THE AUTOCRAT OF THE HOUSE OF COMMONS

The election of a new Speaker of the House of Commons is a rare occurrence; and Mr. Whitley, who has just been chosen to succeed Mr. Lowther, has now become the First Commoner of the Realm, a title which the Speaker has officially held since the days of William III.

The Speaker is the official who presides over the House of Commons, preserves order there, and regulates debates. He has a casting vote if in a division there should be equal numbers on both sides.

He issues writs for elections to fill parliamentary vacancies, he summons witnesses or prisoners to the bar of the House of Commons, and commits to prison those persons who have offended against the privileges of the House. His power and dignity, indeed, are very great, and after the Prime Minister he is the most distinguished citizen.

When the Speaker was Spokesman

The first Speaker of whom we have any record is Sir Peter de la Mare, in the reign of Edward III; and Mr. Whitley is the 123rd of the line, but many served second and some third terms.

The title of Speaker is not now so accurate as it once was, for in the middle of the 14th century when the Commons chose a Speaker it was not so much to secure order in debate as to obtain an official mouthpiece in their relations with the Crown.

Gradually the duties of the Speaker developed, though for more than two centuries the office was practically in the gift of the Crown, and the Speaker was the creature of the sovereign. In the time of Charles I, however, the Speaker became the servant of the House. As Speaker Louthall said, "I have neither eyes to see nor tongue to speak but as the House is pleased to direct."

Speaker's Affrightment

Of course, now, the Speaker is very much of an autocrat. His word is law in the House, and all the members have a profound respect for Mr. Speaker. This was not always the case, and we find in 1610 a Speaker complaining that a member had "put out his tongue and popped his mouth with his finger."

Even the worthy William Louthall was very much upset because as he put a question to the vote a member crept up softly behind him and shouted Bo! in his ear, to his "great affrightment."

Sometimes members have had to coerce the Speaker into doing his duty; and every boy and girl remembers how a nervous Speaker, Sir John Finch, in the time of Charles I feared the King so much that he dared not put a question to the vote, and would have left the Chair, but was held in his seat forcibly by some younger members.

Speaker Who Took a Bribe

During the last hundred years Speakers have been great gentlemen. This, however, was not always the case. Sir John Trevor, the first Speaker to receive the title of "First Commoner of the Realm," took a bribe, and, having been found guilty by the House, was compelled to rise and read his own condemnation.

There have been many scenes in the House of Commons which have been settled by the wisdom and tact of the Speaker. The last was the free fight which took place in Committee in 1893, when a weak chairman was presiding. Mr. Speaker Peel was immediately sent for, and when he entered his stern expression and grave dignity at once quelled the tumult.

Mr. Whitley will undoubtedly carry on the high traditions of his predecessors.

INVENTIONS & IDEAS Things Just Patented

By Our Patent Office Expert

These inventions have been only just patented, and the Editor has no further information

SHOE SOLES OF WOOD

Soles for boots and shoes are made of slats of wood attached to a flexible backing of leather. Metal can be used instead of wood, if desired. The slats are kept in position by a narrow strip of springy metal.



A DANCING DOLL TOY

A jointed doll is mounted on a flexible wire so that its feet rest on a spring board, and when a lever is tapped this moves, the wire is vibrated, and the whole figure begins to move about in a very realistic and amusing way. Any kind of figure can, of course, be used.



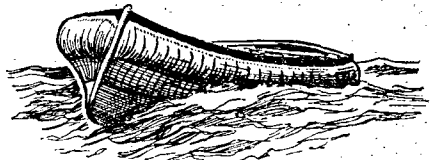
A FOLD-UP CHAIR

This is a collapsible chair in which the seat, sides, back, and legs are all hinged and fold over on one another, so that the chair can be easily carried about. When made of light wood it is very portable, and is handy for picnics, theatre queues, and so on.



A PROTECTED LIFEBOAT

The lifeboat has all round its sides a cushion, consisting of basket-work filled



with cork, to take the impact of shocks.

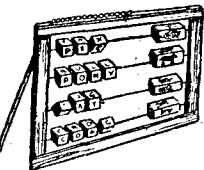
A STIFFENER FOR A HAT

In order to preserve the shape of a man's soft felt hat an M-shaped stiffener is placed inside toward the front, and supports the material of the hat however soft it may be.



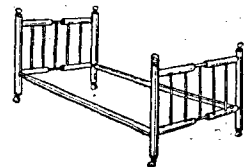
A NOVEL SPELLING BOOK

A framework is fitted with wires on which are a number of movable cubes, each face of which bears a letter. By moving the cubes round different words can be spelt, and a second series of cubes has pictures illustrating the words that are formed.



A TELESCOPE BEDSTEAD

This single bed can be quickly transformed into a double bed by adding bars to the rails at the head and foot. The mattress is also expandable and closes in upon itself, and can be extended.



FOR CARRYING THE WOUNDED

A rigid seat for carrying wounded or injured persons. It is strapped to the back of the carrier in the way shown in the picture, and the hands and arms are thus left free. The weight is borne on the shoulders, and a strap round the waist of the carrier keeps the seat from shifting about unduly.



A VENTILATED DUSTBIN

The bottom of a dustbin is perforated in the centre and stands upon legs that raise it from the ground. In this way the contents are ventilated, a current of air being able to pass through it and no accumulation of moisture being allowed to collect at the bottom of the vessel.



FISH THAT KEEP GOOD FOR YEARS

New Use for Electricity

A new process has been discovered for drying fish by electricity in a few hours.

The dried fish will keep good for years, and have only to be soaked in water to become "fresh" again. One of the greatest industries in Norway is the drying of cod, which are split open like a smoked haddock, and placed on the rocks to dry in the sun of June, July, and August.

Thousands of tons of this dried fish are exported to Roman Catholic countries in South America, right inland, so that fish may be eaten on Fridays. So successful is the new process that electric fish are likely to become the Friday meal in these countries.

FORTUNE IN A VOICE Scottish Boy's Great Opportunity

Sandy Milne, a Scottish lad of 15 from Edinburgh town, seems to have suddenly found a fortune in his voice.

When he arrived with his parents and the rest of the family at New York as emigrants, permission to land was refused because of the parents' ill-health.

But a special plea was put forward for Sandy, who had been found to possess a voice of such great beauty that he was offered 300 dollars—about £60—a week to sing.

So Sandy will start in the States as a singer with a great opportunity through the fine advertisement he has received, and it will not matter so much that his parents are sent back to Scotland.

ROBINS GO TO SCHOOL Making a Home on a Book

The Glengarry School, Wentworth Road, Harborne, Birmingham, is the scene of the following incident, of which we hope our correspondent will give us the sequel.

During the holidays a robin entered the schoolroom through a two-inch square ventilator and built its nest on some books on a shelf.

By the middle of April it had laid five eggs, and when the school re-opened, in spite of the noise of the school-work, it kept happily to its nest.

Its mate brought it dainty morsels from time to time.

Needless to say the children were keenly interested, and looked forward to the appearance of the young robins.

STRANGE HAPPENINGS IN EGYPT

A Hen That Crows and a Cock that Cackles

One of our readers, who lives in Egypt and has the C.N. sent to him by a wise grandmother, sends this account of fowls there.

We keep four hens and did have a white cockerel. When our white cock died one of our hens took to crowing.

Our present cock cackles like a hen. When we let them out for a run in the garden if he finds a bit of maize he calls the hens, and if they do not come he takes it to them.

At the same time he keeps an eye on the gate, and if a stranger comes in he makes a curious cackling noise, and all the hens run to the house.

He is so tame he will fly on my back, shoulders, or head.

MILKMAID'S PLACE ON THE FARM

A Worker but Not a Labourer

The Law Courts have decided that a milkmaid has a place of her own on the farm.

She is not an agricultural labourer, but only a milkmaid. The decision leaves the milkmaid with all her romance undestroyed, but keeps down her wages.

ANIMAL ALLIES OF MAN

TEACHING OWLS TO CATCH COCKROACHES

How the Cormorant Fishes for
His Master

MAN AND THE ANT ACT AS TAMERS

Cockroaches are such a nuisance about our houses that the Natural History Museum at South Kensington has just issued a sixpenny booklet dealing with them and with ways of destroying them. But a naturalist in his own home has gone to nature for his policeman, and tamed a little brown owl to the task.

The bird perches like a trustful pet about its master, and at night, when cockroaches come out from hiding in their crannies, it hears the least sound, and pounces down and catches them.

That helps to rid the house of the pest and constitutes the reward of the owl, who finds a cockroach as dainty a tit-bit of diet as can be offered it.

The Ring Round the Neck

Splendid birds are the little brown owls, gobbling up our enemies when most of us are asleep. The idea of domesticating them in this way is, however, new with us, whatever may have been the practice of the ancients, to whom the owl was the emblem of wisdom. But they are not the only birds that are trained to serve man.

In China cormorants are trained to fish for their masters. At first a ring is put round their throats so that they cannot swallow their prey, but this is afterwards discarded, and the birds bring their catches to the fishermen as docilely as retrievers bring in game.

In England, too, the use of trained falcons for hunting was once common.

Mongoose as the Foe of Snakes

No wild elephants are caught and trained without the help of tame elephants; no rats or rabbits are routed from their runs and burrows without the help of ferrets, which are simply polecats domesticated from ancient times to our own. What the ferret does for the West the dashing little mongoose does for the East, only the enemies of the house against which he has to battle are deadly snakes. Many an Indian household owes its safety from the appalling cobra to the vigilance and courage of the agile mongoose.

Ferrets and mongooses are risky things for nervous hands to tackle, but some of the best of our friends are from the dangerous tribes of the earth. The dog that fights anything for us is wolf and jackal in descent; the cat is a little cousin of the tiger. The cheetah, which Indian sportsmen set to hunt the fleetest deer, begins his career as a wild animal, like the free leopard, to which he is so closely related.

Animals Man Has Tamed

Men and the ants are the only creatures that tame and preserve other living things. But man's scope is infinite. Of all the multitudes of camels in existence there are none wild save a few scattered herds roaming Central Asia, and these descend from domestic animals that survived the overthrow of cities blotted out by sandstorms. The rest are the dependants of men.

Associated with them in help to little man with his mighty mind are reindeer, buffaloes, cattle, yaks, llamas, sheep, goats, horses, asses, zebras sometimes, ostriches farmed like poultry, pigeons and fowls of innumerable breeds everywhere, and, coming lowest in the scale, ladybirds, collected and stored ready to be sent out to do battle for the growers against insects that threaten the life of the orange and lemon and other crops of America's sunny lands.

And every bit of fine silk is spun for us by the caterpillars of a moth which passes its life in luxurious captivity.

THE WEEK IN NATURE

Birds Very Busy

MAYFLIES LEAVING DITCHES AND STREAMS

By Our Country Correspondent

May 15. Among the many insects now getting on the wing is the short-lived mayfly. The eggs of this creature were laid last summer; the tiny larvae hatched out in the autumn, and grew all through the winter until they were nearly an inch long. Now, nearly a year after the eggs were laid, the perfect insects are emerging, leaving only an empty larval skin in the muddy streams.

May 16. Nightingales, willow warblers, titlarks, whitethroats, tree pipits, goldfinches, blackcaps, whinchats, and sedge warblers are all busy laying their eggs, and we may hope before long to see them bringing up young families. The nightingale's song continues, and will do so till its young are hatched.

May 17. A very striking butterfly, though not a large species, and one that cannot be mistaken, is the male orange-tip, which frequents meadows and lanes. The female, however, is not so easy to identify, as it is without the characteristic orange across the wings.

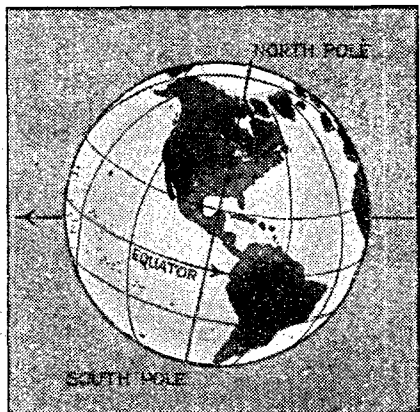
May 18. The common cockchafer, now being found in growing numbers, is a pretty insect but it is very destructive. In the larval stage it feeds on the roots of various grasses and sometimes attacks the potato crops, while the perfect insect, now on the wing, lives on the leaves of trees, which it sometimes completely strips.

May 19. Though the spotted fly-catcher often delays his visit till fairly late in May, he may be expected early this year. He is one of the commonest of our summer migrants, and, being so obscure in plumage and unattractive in appearance, he finds it unnecessary, like some prettier birds, to hide himself among the leaves of the shrubbery.

May 20. There is almost daily an increasing number of bird families in the countryside, and we may now find little greenfinches and long-tailed tits in their parents' nests.

May 21 While some birds are laying and some hatching out their eggs, there are still others which have actually brought up their families and are now sending them out into the world. Among the young birds now fledged are the chaffinches and starlings.

THE EARTH SEEN FROM THE SUN



This is how the earth would appear to you at 6 p.m. on any day in May if you could see it through a telescope from the sun. Of course, the lines of latitude and longitude would not appear; they are put in to show the tilt

NEXT WEEK IN THE GARDEN

The shoots of asparagus should be regularly cut as they become fit, but do not injure the crown of the plants with the knife.

Sow scarlet runners. Sow spinach for succession, and thin out advanced crops. Hoe between rows of potatoes, and earth up those that are above ground. Hoe, thin, and weed onions.

Should the weather be dry, water newly-planted shrubs and plants, giving them a generous soaking. Stake and tie any plants that need it.

PLANTING A FOREST

LOOKING 50 YEARS AHEAD

Two Million Acres of Britain to be Covered with Trees

FORESTS THAT EXIST ONLY IN NAME

Two million acres of Great Britain are, in course of time, to be planted with trees and converted into forest.

Already a beginning has been made, and at Butley, in Suffolk, 2500 acres of barren land, bought a year or two ago by the Forestry Commissioners, are now being planted. A thousand acres have already been covered, and very soon there will be two million seedling conifers planted on this site.

In the two counties of Norfolk and Suffolk alone there are at least a hundred thousand acres of land useless for any other purpose where large timber trees could be grown, and the aim of the Forestry Commission is eventually to convert two million acres into forest.

Millions of Pounds for Trees

The Government is seriously supporting the Commission, and has made a grant of three and a half million pounds on the understanding that by the end of 1930 at least 20,000 acres shall have been planted.

Inspectors appointed by the Commission are arranging in every county for grants to be paid to land-owners who will replant the woods which were destroyed to provide timber during the war.

The programme is an ambitious one, and will take half a century to complete, but a splendid start has been made, and there is no reason why, in fifty years or so, Great Britain should not be supplying most of its own timber needs.

Houses Make Room for Trees

Britain was, of course, in olden times, famous for its forests. As the country grew civilised after the Roman invasion many of the forests began to be cut down; but with the advent of the Saxons, who were a race of hunters, and the Normans, who also loved the chase, not only was the destruction of the forests and woods prohibited, but new forests were planted.

Commissioners were appointed who selected suitable ground and fenced it round. Then the king proclaimed it a forest and prohibited all persons from hunting there without his leave.

The most striking example of this was the formation of the New Forest by William the Conqueror. Many villages, with 22 parish churches, and a number of manors and chapels were destroyed to make room for the forest.

Preparing a Hiding-Place

Some writers say that it was not as a pleasure and hunting ground that the Conqueror formed this forest, but as a secret rendezvous for his troops should he intend to collect an army and make an attack on France at any time.

Of course, many of the forests of old England exist now in nothing more than name. Hainault Forest, Sherwood Forest, St. John's Wood, Enfield Forest, Milburn Forest, Hexham Forest, are only a few of the names that alone survive to keep green the memory of what were once great timbered districts.

The question of home-grown timber has often given rise to a good deal of anxiety, as it is doing now; and towards the close of the eighteenth century there was a Commission appointed to inquire into the matter, which reported very much in the same way as the present Forestry Commission is doing. In fact, that old report sounds all very modern.

C.N. QUESTION BOX

Little Puzzles in Natural History

Answered by Our Natural Historian

All questions must be asked on postcards, and not more than one question on each card

Do English Eels Breed off the Coast of Newfoundland?

No, but in warmer waters, not so far west.

Do Hedgehogs Milk Cows?

This is an old charge against the hedgehog, for which, we believe, there is no foundation.

Do Dogs Like Bells Round their Necks? Probably not. A dog is never happier than when free from all the trappings with which we harness it.

How Tall do Giraffes Grow?

About 18 feet to the summit of the horns is the full height of an adult male giraffe, which is thus the tallest of living animals.

Has a Cow Feeling in Its Horns?

Yes; but not on the outside. Beneath the horny sheath there is a soft core supplied with nerves and blood vessels. If that is injured pain is caused.

What are Californian Bees?

Californian bees is the name given to a ferment in which a yeast and a bacterium exist together, the one resisting the other. The subject was fully dealt with on page 8 of the C.N. No. 90.

Has a Cat Any Marks on its Body which Show its Age?

There is nothing known on the coat of a cat to indicate, like the marks on the shell of a tortoise or the ear-bones and scales of fishes, the age to which a cat has attained.

How Long Does a Newt Live?

It is difficult to say, for it is impossible to keep free newts under observation except for a portion of each year, when they live in the water. But they belong to an order that is very long-lived. All cold-blooded land vertebrates are.

Where is Manna Found?

In Arabia, Kurdistan, and along the Persian frontier, as our correspondent notes. But that species of manna is used only locally, we believe. The manna of commerce, a sweet exudation from the bark of the manna ash, comes chiefly from Sicily.

Which is the Smallest British Walking Bird?

This question arises out of one already dealt with when the quail was cited as the one sought. Correspondents point out that the wagtail, which both walks and hops, is smaller than the quail. That is, of course, the case, but information was originally sought as to ground birds; hence the answer.

How does an Insect-Eating Plant Know when an Insect is on It?

It does not "know." The touch of the insect causes a certain nervous impulse to which the plant reacts. A sea anemone reacts to contact with its tentacles, but the thing it swallows may be a little crab or fish, or a pebble or a halfpenny. And the insect-eating plant can be deceived.

How does a Snipe Bleat?

The question has been asked and discussed for generations, and never satisfactorily settled. The noise is heard in pairing time, when the male, diving down from a height in the air, creates the bleating, or drumming sound. Whether it is caused by the wing feathers, by the voice, or by both in combination, is still a matter of doubt.

Can a Wasp Conquer a Spider? It is very much a matter of chance, although, of course, both creatures show skill in battle. If the wasp gets into the web she is a spider's meal; but if she can give the spider a thrust with her sting the position is reversed. We shall find a fascinating article on war among the animals in the June number of My Magazine—the mother of the C.N.—which is now lying on the bookstalls. The article is beautifully illustrated.

COMET IN A HURRY

GREAT RACE WITH THE EARTH

Passing Through a Comet's Tail CAMERA ACTS AS DETECTIVE OF THE SKY

By Our Astronomical Correspondent

Pons-Winnecke's comet is now nearly at its closest to the Earth, yet it still remains a most insignificant object.

It is about twenty moons away to the north of Vega, the brightest star in the north-east after dark, but the comet is quite invisible to the naked eye.

Our long anticipated visitor has not proved as interesting as the unexpected Reid's comet. What made the comet Pons-Winnecke so popular out of all proportion to its size and dignity was the belief that it was to cross the path of the Earth at, or near, the time that we were there, in which case our world and the comet would have become somewhat involved, a happening likely to be much more injurious to the comet than to our staunch little planet.

The Yellow Phosphorescent Light

Indeed, the Earth passed right through the tail of the Great Comet of 1861, on June 30 of that year, travelling for a day or two through some millions of miles of tail, and yet very few people knew that anything had happened, a yellow phosphorescent light being all that a few observers noticed on the night of that eventful June 30.

We expected something of the sort to happen again, but Pons-Winnecke has disappointed us, first by being unusually small—doubtless through having gone too near Jupiter three years ago—and also by being in too great a hurry, for he has recently been travelling at about 2,000,000 miles a day to the same locality in space that the Earth has been making for. Our world can do but 1,600,000 miles a day.

Fine Display of Meteors

Now, the comet will reach there on June 6, when it will be twelve and a half million miles away, and will be at its nearest, instead of being mixed up with us.

But this disintegrating comet is known to leave a long stream of meteors in its wake, and into this the Earth is expected to travel towards the end of June, the 29th being the most probable day, when some anticipate we may have a very fine display of shooting stars, as they are popularly called.

The comet will continue to travel with an ever-increasing speed toward the Sun till June 11 or 12, when it will be at its nearest point to him—that is, at perihelion, as astronomers say. It will then be inside the orbit of the Earth, between it and the orbit of Venus, when its near approach to this planet, and still more to the Earth, will, by the resulting planetary attraction, still further disturb and help to dissolve it into a vast stream of meteors, a fate to which it appears to be hastening.

Comet Lost for 40 Years

Although as it approaches the Sun the comet will get brighter, there is little probability of its being seen with the naked eye, and in nearly six years' time, when it returns, the Earth will be much farther from it, so our chances of seeing it again, if we ever do, will be nearly twelve years hence, at its second return.

It was missed for forty years after its first discovery in 1819; but now a comet stands very little chance of escaping detection. On this occasion it was first seen by Professor Barnard of the Yerkes Observatory on a photographic plate, too faint to be readily visible even in a powerful telescope. It was then estimated to be even smaller than the Earth. G. F. M.

A MESSAGE FROM SPACE

A Thrilling Story of Flying Adventures
Telling How Mars Saved the Earth

Told by
GEORGE
GOODCHILD

What Has Happened Before

Tom Breckneck; a boy of 16, and his sister Joan are left to the care of their uncle, Robert Breckneck, when their father dies. Tom joins an engineering works where his uncle is building a huge airship, the Dragon-Fly, for Lord Parry.

When the airship is completed it is planned that she shall fly to Australia, and Tom is appointed a wireless operator for the voyage.

On the eve of departure he goes to say good-bye to his sister, and meets Ida Chudd and her brother Rolf, with whom Tom once had a fight. He learns, to his amazement, that Rolf is also to sail in the Dragon-Fly as a wireless operator.

After the start the airship passes over Devon, and the two boys see their sisters in the garden of Tom's old home.

CHAPTER 15

A Terrible Experience

ALL day long the Dragon-Fly winged its way westward.

At times the cloud-field below them thinned away, and the blue Atlantic Ocean could be seen. Constantly they varied the altitude, searching for favourable wind currents. Four hours out from Plymouth they ran full into a terrific wind which struck them like a gigantic wave.

The vessel seemed to quiver from stern to stem, and reared against this unexpected phenomenon. It swerved from its course, and performed giddy tricks at an angle of thirty degrees. Tom, unaccustomed to such antics, clung frantically to a rail, half expecting the Dragon-Fly to plunge down into the dizzy depths.

A bell sounded, the throb of the motors changed in rhythm, and the obedient ship moved to a horizontal position. Then her nose came up, and she took a big lift upwards.

The wind still raged around her, but her upward course was undeterred. Tom guessed they were attempting to rise above the aerial disturbance. Higher and higher she went, until the ocean lay like a perfectly still opalescent sheet.

The wind slackened, and then almost died away. Hennessee, Tom's chief, who had been attending to the electric light generator, came forward and rubbed his hands.

"We're up 20,000 feet," he said. "It must be cold outside."

The fact had never occurred to Tom. The artificial heating kept the interior at a steady 60 degrees, and he had felt no change. To prove the point Hennessee put a thermometer outside the window. In two minutes the mercury had sunk to 12 degrees.

"Twenty degrees of frost," he said. "By Jove! The motor-men must be cold. They've no heating apparatus."

An hour later some of the motor-men climbed into the hull, their period of duty having expired. They were clad in huge fur coats with woollen caps tied over their ears, and icicles hung on their beards and moustaches. Jim Knowles was among them. He grinned at Tom.

"If we go any higher we shall freeze stiff," he said. "Why didn't I take a job inside?"

But the ship had passed the "bad patch," and was now climbing down from these cold areas. In a few minutes they were down to 8000 feet.

Tom took over the wireless instruments just as the red sun sank over the far horizon. Rolf, tired out with constant signalling, went straight to his bunk. Tom settled down to his novel experience of listening to what the world was saying. Every hour he sent out their bearings as given by the skipper or first mate.

Over a radius of 2000 miles these messages flashed with the speed of

light. In England, France, America, men were picking up the signals from the upper air. In a thousand newspaper offices busy editors were interpreting them in cold type for the benefit of an anxious public. It was all weirdly wonderful, and more so when actual voices came from ships at sea into the wireless telephone receiver, whose radius of action was 500 miles.

Then the stars came out—no such stars as Tom had ever seen before, dimmed by a cloudy atmosphere, but like hanging lamps. Through the port-hole he could see Vega blazing like a rich jewel, appearing and disappearing as the position of the vessel altered from time to time. Below him the engines kept up a steady roar as they drove the propellers in swift revolution.

Hennessee came in before he retired to see that everything was in order. Already he had taken a great liking to Tom, and was keen to discuss problems connected with his work which he loved above all things. One or two remarks that Tom let fall astounded him, for they dealt with phases of electrical energy that were yet almost entirely undeveloped.

"Well, if you want me my bunk is No. 26," he said. "Push the button and I'll come along."

"Everything seems to be all right," replied Tom. "Rolf takes over from me at 4 a.m."

"Very well. Good-night."

It was between three and four o'clock in the morning that a strange thing happened. Tom, half lost in romantic reflections, was suddenly brought to his senses by a terrific oscillation of the vessel. She seemed to rock madly from side to side, and then to spin round and round. The wireless receiver set up a loud tapping that meant nothing. He heard a bell tinkle and the sound of voices forward. But still the vessel performed her mad feats.

He looked out of the port-hole, and found by the lie of the stars they were going backwards, stern on. A messenger came running down the corridor and dragged Robert Breckneck from his bunk. Tom heard exclamations of alarm.

"Captain Wren wants you, sir. Ship's all gone wrong. Can't make headway."

Then from all over the vessel came the most blood-curdling groans, as though wild beasts were in agony.

Robert rushed in at the door.

"What's wrong, Tom?"

Tom stared.

"Nothing. I heard queer noises outside."

Breckneck turned pale.

"I thought it came from here," he stammered.

The ship was astir by this time. Everyone was running about trying to find the origin of the uncanny noises. Two men came up from the centre car, shivering with cold and with terror. They ran full into the arms of big Jim Knowles.

"What's all this?" he ejaculated. "What do you mean by leaving your posts?"

"D-did you see it?" quavered one of the men.

"See what?"

But the man would impart no further information. He looked nervously at his chum, and then reluctantly climbed back into the car. Jim shook his head at Tom, and surveyed the tense figure of Cookie, who came along the passage armed with a small aluminium frying-pan. His eyes were round as saucers.

"He's up there in my galley," he whispered.

"Who is?"

"The devil. Listen! Can't you hear him raging?"

At that moment a frightful sound echoed through the ship.

Cookie brandished the frying-pan, and then fell down as the ship creaked and turned dizzily.

"He's got us!" he moaned.

"Hold up!" retorted Jim. "It is your bad cooking that has given us all the nightmare."

Rolf Chudd, obviously scared out of his life, came on duty, and Tom went outside, where a knot of people were discussing the terrifying experience.

CHAPTER 16

Caught in the Eruption

THE noises and the unaccountable actions of the vessel eventually ceased, and those who were not on duty were ordered to their bunks. Robert Breckneck, with a reefer coat over his pyjamas, buttonholed Tom on his way to his bunk.

"That was a queer experience."

"What was it?" asked Tom.

His uncle shook his head.

"It was a mystery that may never be solved. For a time the vessel was actually going backwards, for no apparent reason. All the steering apparatus was in perfect working order, and yet had no effect whatever. The Dragon-Fly took violent fright at something and wanted to go home."

"But the horrible noises?"

"Heaven only knows what caused them. It's given us all a pretty kind of fright. There's Henderson convinced that the air is full of invisible creatures. I suppose there is a scientific cause if we were intelligent enough to discover it. We seem to be out of it now. You are looking tired. Go to bed and forget it. Tomorrow we ought to fetch up the West Indies."

Despite this eerie experience Tom slept the sleep of the just, and awoke to find a brilliant day and a calm blue sea beneath them.

They picked up a favourable wind stream, which added twenty knots to their speed. All day they rushed like a meteor westward, and in the dusk of the evening came upon a group of islands lying like jewels in a sea that was all the colours of the rainbow.

Tom had just finished duty and was scanning the glorious scene that lay below. The ship was plunging downwards, anxious to drop the mails while the light lasted. The wireless was flashing away madly, giving them bearings for the delivery ground.

At 1000 feet the motors ceased, and the vessel hung over a wide open space. Over went the mails, attached to small parachutes. Tom saw them descend, gracefully to terra firma, to be picked up by a crowd of native postmen.

A few signals of farewell, and they were off again. Before the morning they had crossed the

Caribbean Sea and the Isthmus of Panama, and were, actually in the Pacific. These were anxious times.

Robert Breckneck and Captain Wren made no attempt to sleep. They were now flying through uncharted wind currents which threatened destruction every minute. The work was pregnant with danger, but it was fascinating beyond comparison. At times Wren climbed on top of the envelope itself, and with a sextant and other instruments took bearings.

The library table was covered with open maps, under constant examination. From these, and from conversations with his uncle and Wren, Tom learned a lot about wind currents and meteorology in general. He found, to his amazement, that at 18,000 feet above the Equator the temperature was at freezing point, and that this frost line sloped downwards north and south.

Looking down at the sun-scorched islands, where the temperature was anything from 100 to 110 degrees in the shade, it was strange to realise that here, but a comparatively short distance above, it was freezing.

Before them lay thousands of miles of blue sea and coral islands. Beyond that lay Australia. In three days, under favourable conditions, they should float over Brisbane. No wonder their pulses throbbed a quicker note. Success seemed so close now.

But conditions were not favourable. Something happened that was outside all human calculations. Could they have foreseen this it might have reduced their hopes to zero.

Thunderstorms they evaded by rising above them, adverse winds were to a large extent avoided by the combined knowledge of Gellett, Wren, and Robert, but this new and unexpected terror had results beyond human reckoning.

The Dragon-Fly had made splendid progress all day, and the evening meal was in progress when Professor Gellett noticed something strange in the heavens.

Low on the horizon, ahead of them, was a glowing crimson belt. It began to extend with great rapidity as the minutes passed, until the whole western sky was aflame with the most wonderful light that mortal eyes ever beheld.

Gellett stood up, and his keen eyes were expressive.

"What do you make of it, Wren?" he asked.

"I don't like it."

"No. It reminds me—"

At that moment a great force seemed to shake the life out of them. It was not so much an explosion as a vast atmospheric disturbance. Tables were overturned and crockery crashed to the floor. The heavens turned black, and all over the ship came fine dust.

A second nerve-racking shaking came, much more violent than the first. The ship reared and plunged, and stood still. The crowd in the dining saloon stared out into the inky blackness, and then enlightenment came. The thick pall was riven by a gigantic tongue of blood-red fire that seemed to reach up to heaven itself. The air was full of hissing sounds, and the sea below shrieked aloud.

Crash! A white-hot missile struck the side of the hull and tore away part of a cabin.

Gellett's face went deathly pale.

"Turn the ship!" he gasped.

"It is a volcanic eruption. Quick! We're driving right on to it!"

Wren and Robert Breckneck rushed to their posts. The ship quivered as the powerful apparatus turned her about. She seemed to gain stability for a second, and then came a shrieking like a thousand demons let loose.

There was a rending of wood and metal, a plaintive groan from the crew, and the Dragon-Fly was caught up, as though by some giant hand, and flung into the awful blackness.

TO BE CONTINUED

Who Was She?

A Famous Author

A FEW weeks after Napoleon's son, the young King of Rome, was born in Paris a little girl was born in America who was destined to become famous throughout the world as the author of a book that did more, perhaps, than anything else to bring about the abolition of a great national wrong.

Her father was the principal of a college, and at 25 she married a professor in the college.

During the next few years her life was a busy and happy one, and she brought up a large family, educating the children herself and finding time to write a number of short stories, which were published in magazines.

The great national wrong which was going on in her country caused all thoughtful people to take sides, and she and her husband soon declared themselves emphatically on the side of truth and righteousness. This led to some persecution, and the professor had to leave the college. He soon obtained another appointment, however.

His wife had been stirred by these events, and made a very close study of the great question then agitating her countrymen. As a result she wrote a story which was published serially in a newspaper under the title of "Life Among the Lowly."

The story was cleverly written, and was one of the most powerful indictments of a national evil that has ever been penned. Its success was instantaneous. Everybody in America read it, and when it was issued as a complete book it went round the globe, being translated into nearly all civilised languages.

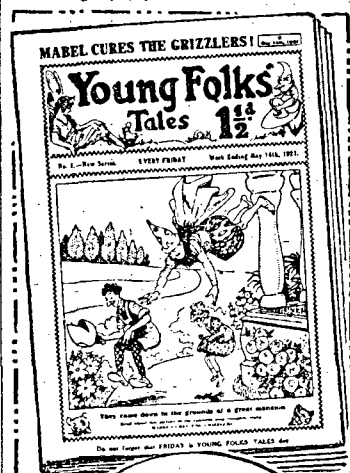
Millions of volumes were sold, and today it is a famous classic that finds a place in every library of notable books. Its title, which was changed, is now a household word.

The supporters of oppression were furious, and the author's life was threatened; but the facts she disguised as fiction were too true to be suppressed, and the work stirred up in the minds of all right-minded men and women a strong indignation and a stern determination to put down the evil.

This they did, but only after a fiery ordeal that shook the nation to its very foundations.

The author of the book that had played so large a part in a great reform came to England after many pressing invitations, and was greeted with enthusiasm wherever she went. She wrote an account of her visit under the happy title of "Sunny Memories."

She produced other books, but none of them added to her literary reputation, and after her mind had become clouded she died at the great age of 85. Here is her portrait. Who was she?



Greatly Enlarged

A new number every Friday. The ideal fairy story-book for your little brother and sister

Oh, the Days I Dote on Yet, Marjoram, Pansies, Mignonette

DR. MERRYMAN

TEACHER: "Do you know the population of London?"
Smart Boy: "Not all of them, sir. I've only lived here two years."

The Tripper's Kipper

THERE once was a dashing young tripper
Who sailed in a boat with a skipper.
He caught a fish with a pail
And exclaimed, "It's a whale!"
But the salt sneered "It's only a kipper."

As the Crow Flies

"How far is it between these two villages?" asked the magistrate.

"About four miles as the flow cries," was the reply of the witness.
"I suppose you mean as the cry flows?" rejoined the magistrate severely.

"No, your worship," chimed in the solicitor. "He means as the fly crows."

And then all the people in court looked at one another, but nobody laughed.

WHAT is it that has neither flesh nor bone, and yet has four fingers and a thumb?
A glove.

Numerical Anagram

A FAMOUS English warrior duke
Whose battles are renowned;
An early English admiral
Whose boat the globe sailed round;

A navigator who was killed
By savage treachery;
A noted voyager who first
America did see;

A sailor second in command
In great Trafalgar's fight;
The vessel in which Nelson fell
Combating for the right;

Initials of these six words take
And place them side by side,
Then they will name, as thus arranged,
The year when Nelson died.

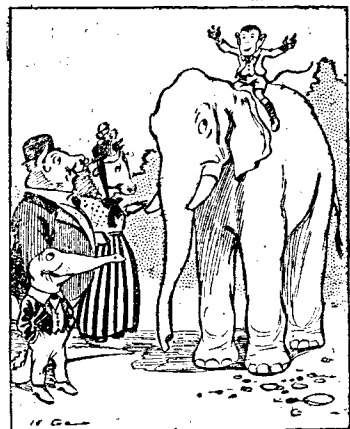
Answer next week

WHAT roof covers the most noisy tenant?

The roof of the mouth.

The Stupid Young Man of Montrose

THERE was a young man of Montrose
Who fell over and trod on his nose.
He said, "What a bore
That my nose is so sore.
I must have tripped over my toes."



The Escapades of Johnny Crook

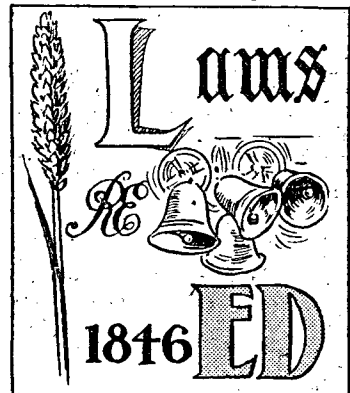
MR. BULL and Mrs. Cow
To Johnny Crook did run.
"Oh, come and look at Joe!" they said.

"You will enjoy the fun."
On Jumbo's back was Monkey Jack,
An imp of mischief he.
"Get off at once!" said Jumbo Joe,
"Or you will sorry be."
He just rolled over once, and Jack
Was pressed quite flat, you see.

A Queer Little Jap
THERE once was a queer little Jap
Who for Englishmen cared not a rap.

When he went to the Zoo
To find someone he knew,
A Jap spaniel ran off with his cap.

Events in History



What famous event in English history is here described? Solution next week

The Elephants and the Piano Keys

"OVER six thousand elephants a year go to make our piano keys," said Mr. Brown at breakfast, after reading a paragraph in the paper about the state of the ivory market.

"Fancy!" exclaimed Mrs. Brown. "Is it not wonderful what they can train animals to do now?"

WHY are cowardly soldiers like butter? Because when exposed to fire they run.

In Fairyland

I MET a little elf-man once
Down where the lilies blow;
I asked him why he was so small
And why he didn't grow.

He slightly frowned, and with his eye

He looked me through and through.

"I'm quite as big for me," said he,
"As you are big for you."

WHEN does a man keep his word?
When nobody will take it.

An Exciting Chase

A BATTALION of Territorials were on the march through the lanes of Kent when suddenly a fowl appeared in the middle of the road just ahead of them.

Scenting a fine supper, a young recruit who was near the head of the column dashed out after the bird.

"Halt! Halt!" cried the sergeant-major, but both man and bird only increased their speed.

Presently the soldier returned with the bird safely tucked away under his arm, and said, as he approached the sergeant-major, "Now, you disobedient bird, I'll teach you to halt when the sergeant-major calls halt."

Topsy-Turvy

IN spring I look gay,
Decked in comely array.
But in summer more clothing I wear;
When colder it grows
I put off my clothes,
And in winter quite naked appear.

Answer next week

Is Your Name Bullinger?

THIS name is from the French word *boulangier*, a baker, and the earliest Bullingers were probably descended from some baker who came over to England from France to settle. The descendants of many English bakers are called Baker.

ANSWERS TO LAST WEEK'S PUZZLES

A Quaint Companion A poker

What Game is This? Football

What is His Age? Dick is eighteen

Jacko Goes Shopping

FATHER came down one morning in a very dissatisfied mood. "Pon my word," he said, as he flicked a slice of ham on to his plate, "this bright spring sun does make one's clothes look shabby! I shall call in at the tailor's by and by, and see if I can get a decent suit for less than a hundred pounds."

"They say prices are coming down," remarked Mrs. Jacko. "Time they did," grunted Father. "They won't play their tricks on me. I'll pay a fair price and not a penny more."

Jacko grinned, and made a movement with his arm like winding up a gramophone.

His father didn't say any more, but as soon as breakfast was over he put on his hat and coat and marched off to the shops. Jacko followed him, and when, after inspecting the windows of the big tailor's for nearly twenty minutes, his father pushed open the door and walked in, Jacko sneaked in after him.

Jacko had no intention of missing any of the fun; and there was plenty of fun when Father went shopping. He was very particular, was Father Jacko. He never knew quite what he wanted—but he knew very well what he didn't want.

"I want a suit," he began briskly—"a cheap, wearable suit. Nothing loud or startling—none of your chessboard patterns for me!"

"Exactly! Exactly!" replied the shopman in a soothing voice. "Nothing loud. Nothing startling. Certainly not. Something quiet and dark—"

"Dark!" roared Father Jacko. "I didn't say dark. I



"Don't go!" mimicked a voice from the stand

want a *light* suit. We're going into the summer, aren't we? At least, we hope we are."

"Oh! Exactly! Exactly!" said the shopman, bustling off. "Parrot!" muttered Father Jacko.

While he waited Jacko wandered round the shop. The dummies all dressed up reminded him of his dandy brother. He gave one of them a poke as he went by, and knocked its hat on one side.

Presently back came the shopman, staggering under a load of suits. One by one he held them up and showed them to Father. And one by one Father found fault with them.

Well hidden behind a stand was Jacko watching, highly amused.

At last Father stood up to go. He would have nothing.

"There's a tasty little suit in the other room I'd like you to see," urged the poor shopman, in desperation. And while Father Jacko went off, very reluctantly, to inspect it, Jacko took hold of the dummy, threw it in a corner, dragged off the clothes and slipped into them.

Back came his father and the man, arguing violently.

"Don't go, sir," begged the shopman. "Do let me—"

"Don't go!" mimicked a voice from the stand.

And with that, the dummy fell forward and clasped Father affectionately in his arms.

Ici on Parle Français

Sayings of Jesus: By Thy Words

34. Races de vipères, comment pourriez-vous dire de bonnes choses, méchants comme vous l'êtes? Car c'est de l'abondance du coeur que la bouche parle.

35. L'homme bon tire de bonnes choses de son bon trésor, et l'homme méchant tire de mauvaises choses de son mauvais trésor.

36. Je vous le dis: au jour du jugement, les hommes rendront compte de toute parole vaine qu'ils auront proférée.

37. Car par tes paroles tu seras justifié, et par tes paroles tu seras condamné. Saint Matthew 12

Notes and Queries

What is a Clan? A tribe consisting of a group of families with a chieftain to whom all are more or less related.

What does S.P.Q.R. mean? The letters stand for the Latin words *Senatus Populusque Romanus*, the Roman Senate and People, and these initials appeared on the banners of the Roman standards.

What is a Round Tower? One of the tall, narrow towers found in Ireland, and believed to date from the fifth to the twelfth century. They were used as belfries and as refuges in times of war or disorder.

Tales Before Bedtime

Old Grumpy

COOK had always insisted that black cats are lucky. Mother said that was nonsense and that Nina was not to listen.

But Nina liked listening to Cook, for Cook's tales were worth listening to.

One morning, while she was recounting a thrilling tale of pirates, the kitchen door opened and in walked a fine black cat.

Nina would have sent it out again, but Cook would not hear of it; and after a little coaxing the beautiful creature walked to the hearth and settled down.

Nina thought it had come to stay, and she was terribly disappointed when it ran out into the garden the first time the door opened.

Nina ran out after it—down the whole length of the garden, through the hedge, and right into the grounds of the old man who lived next door.

The old man was their landlord. Old Grumpy, Nina called him; she had never seen him, but who but a grumpy old man would turn Daddie out of a house he had lived in and loved for twelve years.

As she came out from the hole in the hedge she ran full tilt into a little bent figure of an old man. At first Nina thought it was Old Grumpy himself, but one look at the gentle, smiling face relieved her mind.

"The cat!" she gasped. "Did you see the way she went?"

The old gentleman nodded towards the house.

"I've no doubt at all," he said, "that you'll find her in the housekeeper's room."

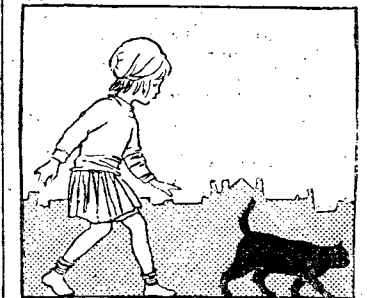
Nina shook her head.

"I daren't go in," she said.

"I might meet Old Grumpy."

"Who's that?" he asked.

Nina told him. And he seemed so friendly that she told



Nina ran after it

him all about the house and Daddie's troubles too.

He listened gravely.

"I dare say," he said at last, "that something can be done to put all that right. I am an invalid. I know nothing of these things. I leave them all to my agent."

Nina could hardly believe her ears.

"You!" she exclaimed.

"Are you—you can't be—"

But he was. Nina loved him on the spot, and they became tremendous friends.

Of course, Daddie stayed on in the old house. And Cook believes in the luck of black cats more firmly than ever.

The Children's Newspaper grows out of My Magazine, the monthly the whole world loves. My Magazine grew out of the Children's Encyclopedia, the greatest book for children in the world. The Magazine appears on the 15th of each month, and the Editor's address is: Arthur Mee, Fleetway House, Farringdon St., London, E.C. 4.

CHILDREN'S NEWSPAPER

May 14, 1921

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THE NEW SPEAKER • CLEVER SCHOOLGIRL ARTIST • FIGHT WITH AN EAGLE



The New Speaker—Mr. J. H. Whitley, M.P., who has just been chosen Speaker of the House of Commons in succession to Mr. Lowther. See page 8



A Fine Jump—The mounted men of the Metropolitan Police have been busy practising for a display which they are to give before the King at the coming summer Horse Show. Here we see a competitor taking the pole jump in fine style



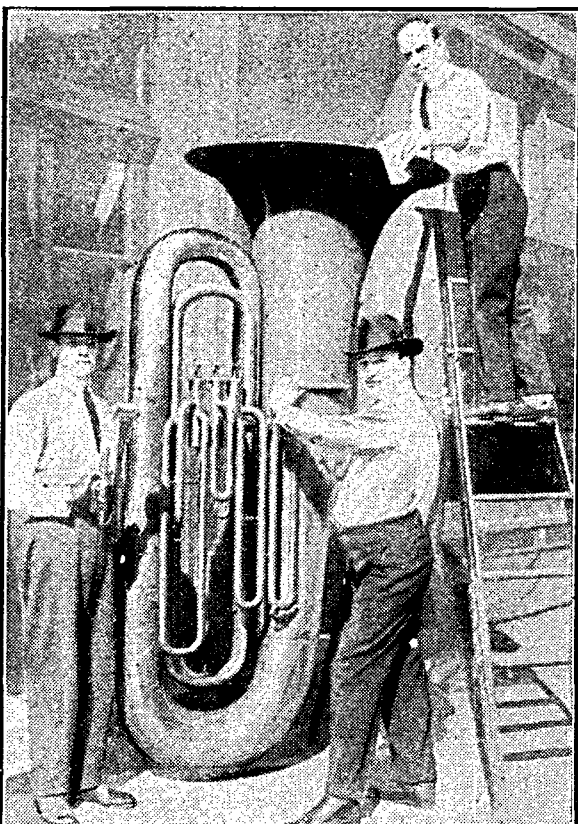
The Ex-Speaker Enjoys Himself—The Rt. Hon. James Lowther has retired, and here we see him greeting a new arrival on one of his farms



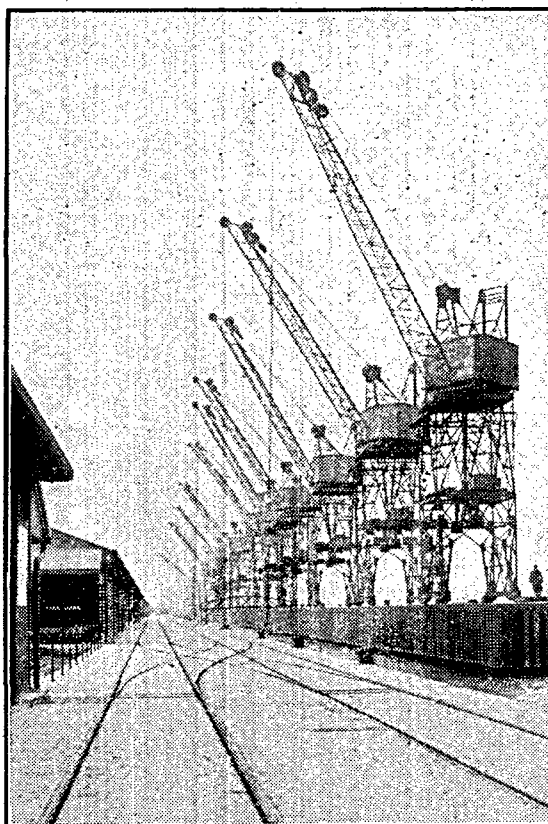
A Fifteen-Year-Old Exhibitor—Miss Eileen Soper of Welwyn, Herts, an artist's daughter who, though only fifteen, has had two of her etchings accepted for exhibition at the Royal Academy. See page 4



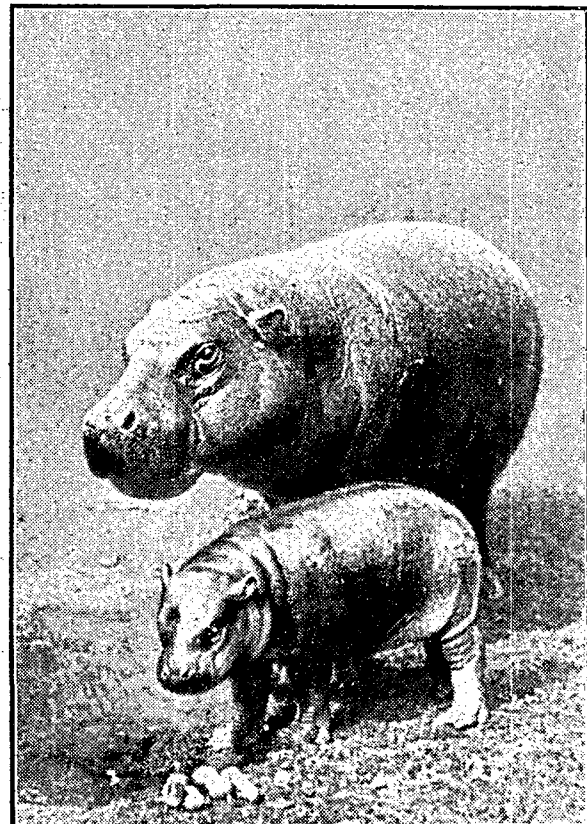
An Awkward Position for the Photographer—This photographer, who was taking a moving picture of the young eaglets in a nest on a mountain in Austria, was attacked by the mother bird and had to desist



Something Like a Trumpet—A monster instrument so big that the owner cannot blow his own trumpet. As a matter of fact, it is not for playing but is a sign used for exhibition purposes



London's Great New Dock—This picture shows some of the big cranes at the fine new dock covering 65 acres, which has been constructed on the Thames at London



A Big Baby—This baby hippopotamus was born in the New York Zoo three months ago and is thriving, although it is not often that hippos born in captivity can be reared